

# U.S.-DPRK EDUCATIONAL EXCHANGES

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## *Assessment and Future Strategy*

EDITED BY GI-WOOK SHIN AND KARIN J. LEE

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

Edited by Gi-Wook Shin and Karin J. Lee



THE WALTER H. SHORENSTEIN  
ASIA-PACIFIC RESEARCH CENTER

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EDUCATIONAL  
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## PREFACE

International educational exchange is the most significant current project designed to continue the process of humanizing mankind to the point we would hope that men can learn to live in peace—eventually even to cooperate in constructive activities rather than compete in a mindless contest of mutual destruction....

We must try to expand the boundaries of human wisdom, empathy and perception, and there is no way of doing so except through education.

—J. William Fulbright, 1976

Despite the dearth of diplomatic relations between the United States and the Democratic People's Republic of Korea (DPRK), there have been numerous and constant attempts by U.S. academia, friendship organizations, and NGOs to develop and promote educational interaction and exchanges between the citizens of the two countries. As part of this effort, the project that ultimately resulted in this collection of essays began with a conference, "U.S.-DPRK Educational Exchanges: Assessment and Future Strategy," held in November 2010 at the Walter H. Shorenstein Asia-Pacific Research Center (APARC) at Stanford University, where past educational exchanges between the United States and the DPRK were assessed and future strategies were outlined. The papers and case studies collected in this volume were first presented and discussed at the conference. Dialogue among the distinguished scholars and international education practitioners was lively and intense, as participants actively discussed the factors that shape the substance and outcome of educational programs, lessons from the past experiences, and potential problems in the future of international educational exchange. We hope that we will be able to continue to develop effective strategies through discussions and self-assessments such as this one in the years to come.

Our gratitude goes to Shorenstein APARC for providing financial and staff support for this successful conference. We also thank the Hanmaum Foundation for cosponsoring this project, especially our partners at the Hanmaum Foundation, President Suck-Chul Yoon and General Director Jung Yi Lee, for their generous support and enthusiastic cooperation. Shorenstein APARC staff were also extremely helpful throughout the process. Many thanks to David Straub, Heather Ahn, and Joyce Lee for their assistance—from planning the conference to putting together this volume.



We hope that this volume will be beneficial to individuals, organizations, and universities who want to join us in the effort to improve the quality and quantity of educational exchanges between the United States and the DPRK. We hope, too, that the distribution of the ideas and insights brought together in this volume will help to make our effort an ever more fruitful one.

Karin J. Lee

Gi-Wook Shin

# INTRODUCTION



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

*Karin J. Lee and Gi-Wook Shin<sup>1</sup>*

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<sup>2</sup>

**O**f 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,<sup>3</sup> 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.<sup>4</sup>

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.<sup>5</sup>

### *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."<sup>6</sup>

Yet Randall Ireson points out, "Objectives have not been constant over time, nor entirely shared."<sup>7</sup> 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."<sup>8</sup>

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."<sup>9</sup>

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."<sup>10</sup>

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.<sup>11</sup>

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.”<sup>12</sup> 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.<sup>13</sup> Syracuse University scholars hypothesize that “the two governments permitted the exchanges in part to keep at least some channels [of communication] open.”<sup>14</sup>

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.”<sup>15</sup>

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.”<sup>16</sup>

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 Koreans 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.”<sup>17</sup> 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.<sup>18</sup> 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,<sup>19</sup> 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.<sup>20</sup>

### 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.”<sup>21</sup>

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.<sup>22</sup>

### **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.<sup>23</sup> 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”)<sup>24</sup>, 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.<sup>25</sup> 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.<sup>26</sup> This may be particularly true for a college or university that already has a strong Asian Studies program.<sup>27</sup>

*“Making China More Like Us”*

Thurston and Maddox also point to an unarticulated motivation of “making China more like us.”<sup>28</sup> 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%<sup>29</sup>—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.<sup>30</sup>

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."<sup>31</sup>

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.<sup>32</sup>

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.<sup>33</sup> 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.<sup>34</sup> 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."<sup>35</sup> 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.<sup>36</sup> 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.<sup>37</sup> 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.<sup>38</sup> 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."<sup>39</sup> 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."<sup>40</sup>

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.<sup>41</sup> 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.<sup>42</sup>

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.”<sup>43</sup> 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.<sup>44</sup> 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,<sup>45</sup> 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.<sup>46</sup>

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.”<sup>47</sup>

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.<sup>48</sup>

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.<sup>49</sup> From an academic perspective, restrictions on jointly authored papers and editorial cooperation may have a similar negative impact.<sup>50</sup>

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.<sup>51</sup> Ireson observed that these programs focused on “best farming practices” in different countries and environments rather than “cutting-edge research problems.”<sup>52</sup> In a more recent paper, Ireson charts the types of knowledge sharing activities with the DPRK on a continuum.<sup>53</sup>

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.”<sup>54</sup> 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.”<sup>55</sup>

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.<sup>56</sup> 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.<sup>57</sup>

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.<sup>58</sup> 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.<sup>59</sup> 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.<sup>60</sup> 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.<sup>61</sup> 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."<sup>62</sup> 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.<sup>63</sup> 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.<sup>64</sup> 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.<sup>65</sup> 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.<sup>66</sup>

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.<sup>67</sup>

### **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."<sup>68</sup>

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."<sup>69</sup> 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.<sup>70</sup>

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].”<sup>71</sup>

### *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.<sup>72</sup>

### **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.”<sup>73</sup> 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.”<sup>74</sup>

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.<sup>75</sup>

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.<sup>76</sup> 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.<sup>77</sup> 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.<sup>78</sup> 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 managers 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.”<sup>79</sup> 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.<sup>80</sup> 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.<sup>81</sup>

*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,<sup>82</sup> 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)<sup>83</sup> to host five officials<sup>84</sup> from the DPRK Ministry of Public Health (MOPH).<sup>85</sup> 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."<sup>86</sup>

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.<sup>87</sup>

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,<sup>88</sup> 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.<sup>89</sup>

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.<sup>90</sup> 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.<sup>91</sup>

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.<sup>92</sup>

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.<sup>93</sup>

### *The Asia Foundation*

The Asia Foundation (TAF) is a development organization with offices in 18 countries in Asia.<sup>94</sup> 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.”<sup>95</sup> 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.”<sup>96</sup> 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.<sup>97</sup>

### *Cornell University*

The cooperation between scientists and administrators from the DPRK and Cornell University (CU) from 2000 to 2010 has been substantial.<sup>98</sup> 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 reopen 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.<sup>99</sup>

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.”<sup>100</sup>

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.”<sup>101</sup>

### *Syracuse University and the Korea Society*

The Syracuse University-Kim Chaek 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.<sup>102</sup>

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.”<sup>103</sup> 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.<sup>104</sup>

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.”<sup>105</sup> 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.”<sup>106</sup> SU later learned that in September 2001 Kim Jong-il had visited KCUT and “formally advised the university to construct a digital library.”<sup>107</sup>

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.<sup>108</sup> 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.<sup>109</sup>

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.”<sup>110</sup> 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.<sup>111</sup>

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.”<sup>112</sup>

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.”<sup>113</sup> 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,<sup>114</sup> 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.<sup>115</sup> 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.<sup>116</sup>

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.<sup>117</sup>

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.<sup>118</sup> 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.<sup>119</sup> 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.<sup>120</sup>

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.<sup>121</sup> 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.”<sup>122</sup> 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,<sup>123</sup>



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.<sup>124</sup> 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.<sup>125</sup> 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.<sup>126</sup> 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."<sup>127</sup> 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.<sup>128</sup>

Korean American participants make invaluable contributions at all stages of a program, from the planning stage forward.<sup>129</sup> 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.<sup>130</sup> 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.<sup>131</sup> 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."<sup>132</sup> 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.<sup>133</sup>

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.<sup>134</sup>

### *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."<sup>135</sup> 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.<sup>136</sup> 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)."<sup>137</sup>

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.”<sup>138</sup> 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.<sup>139</sup> 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.)<sup>140</sup>

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.<sup>141</sup>

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.<sup>142</sup> 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”<sup>143</sup> promoted by the Choson Exchange was developed

in collaboration with “big-name” American universities.<sup>144</sup> 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”<sup>145</sup> 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.<sup>146</sup>

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.<sup>147</sup>

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.<sup>148</sup>

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.<sup>149</sup>

## 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.<sup>150</sup>



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 pursuing 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,”<sup>151</sup> 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.<sup>152</sup> 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.<sup>153</sup> 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.<sup>154</sup>

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.<sup>155</sup> 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.”<sup>156</sup>

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.”<sup>157</sup> 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.”<sup>158</sup> 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.”<sup>159</sup> 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.<sup>160</sup> 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.<sup>161</sup>

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.”<sup>162</sup> 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.<sup>163</sup> 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.”<sup>164</sup> 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

<sup>1</sup> The authors would like to thank Yeri Im, Fred Carriere and Stuart Thorson for their assistance.

<sup>2</sup> 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 60<sup>th</sup> 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 60<sup>th</sup> Commemorative History* (Korea: Korean-American Educational Commission/Seoul Selection), 248–249.

<sup>3</sup> 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>.

<sup>4</sup> “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>.

<sup>5</sup> Stuart J. Thorson et al., Chapter 2, 86. Chapter references in these notes refer to subsequent contributor chapters in this volume.

<sup>6</sup> Edward P. Reed, Chapter 3, 93.

<sup>7</sup> 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.

<sup>8</sup> Personal communication, November 11, 2010.

<sup>9</sup> Personal communication, December 5, 2010.

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

<sup>11</sup> 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>.

<sup>12</sup> 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>.

<sup>13</sup> 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](http://www.keia.org/Publications/AcademicPaperSeries/2009/APS-Seo_Thorson_Final.pdf).

<sup>14</sup> *Ibid.*, 119.

<sup>15</sup> Personal communication, November 2010.

<sup>16</sup> Personal communication, November 2010.

<sup>17</sup> “Middle East Consortium on Infectious Disease Surveillance (MECIDS),” Global Health and Security website, accessed December 18, 2010, <http://www.ghsi.org/projects/mecids.html>.

<sup>18</sup> 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.

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

<sup>20</sup> David Kerr, “Science Can Bridge National Divides,” accessed December 17, <http://www.guardian.co.uk/science/blog/2009/jun/22/science-diplomacy-obama-administration>.

<sup>21</sup> Personal communication, November 11, 2010.

<sup>22</sup> Personal communication, November, 2010.

<sup>23</sup> 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.

<sup>24</sup> *Ibid.*, 138.

<sup>25</sup> 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.

<sup>26</sup> Personal communication, November 2010.

<sup>27</sup> Personal communication, January 31, 2011.

<sup>28</sup> Maddox and Thurston, “Academic Exchanges,” 136.

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

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

<sup>31</sup> 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.

<sup>32</sup> Ibid., 194–195.

<sup>33</sup> Personal communication, January 21, 2011.

<sup>34</sup> 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.

<sup>35</sup> Ireson, Chapter 4, 106.

<sup>36</sup> David Austin, Chapter 7, 142; Reed, Chapter 3, 96.

<sup>37</sup> Some organizations, both NGOs and universities, have been successful at establishing regular communication, including ongoing clarification of priorities and objectives.

<sup>38</sup> James Haldeman, Chapter 1, 73

<sup>39</sup> Reed, Chapter 3, 97.

<sup>40</sup> Park, “North Korea’s Track-Two Foreign Contacts,” 36.

<sup>41</sup> Reed, Chapter 3, 100.

<sup>42</sup> Ireson, Chapter 4, 107.

<sup>43</sup> Reed, Chapter 3, 100.

<sup>44</sup> Personal Communication, State Department, December 21, 2010.

<sup>45</sup> 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>.

<sup>46</sup> Thorson et al., Chapter 2, 87.

<sup>47</sup> Ibid.

<sup>48</sup> Holder, Attorney General, et al. v. Humanitarian Law Project et al., 08-1498 U.S. Reports 1 (2009)

<sup>49</sup> 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](http://www.charityandsecurity.org/background/What_Happens_to_a_Charity_After_an_FBI_Raid).

<sup>50</sup> Personal communication, January 21, 2011.

<sup>51</sup> 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](http://www.ncnk.org/resources/publications/Ireson_KS_paper_Nov_07.doc/file_view).

<sup>52</sup> Ibid., 2.

<sup>53</sup> Ireson, Chapter 4, 103, 107.

<sup>54</sup> Ireson, “Knowledge Sharing Experience,” 1.

<sup>55</sup> Ireson, Chapter 4, 104.

<sup>56</sup> Ibid., 108.

<sup>57</sup> Pyongyang Business School website, accessed December 23, 2010, <http://www>.



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

<sup>58</sup> John Everard, Chapter 6, 130–131. The following paragraphs are drawn from this chapter.

<sup>59</sup> 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.

<sup>60</sup> “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>.

<sup>61</sup> 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>.

<sup>62</sup> 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](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>.

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

<sup>64</sup> Park and Jung, “Ten Years,” 81.

<sup>65</sup> 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.

<sup>66</sup> Park, “North Korea’s Track-Two Foreign Contacts,” 32.

<sup>67</sup> 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.

<sup>68</sup> Park, “North Korea’s Track-Two Foreign Contacts,” 32.

<sup>69</sup> Ibid., 28.

<sup>70</sup> 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.

<sup>71</sup> Park and Jung, “Ten Years,” 80.

<sup>72</sup> For example, the “2007 USA Goodwill Tour of the North Korean National TaeKwonDo Demonstration Team,” accessed July 1, 2008, <http://www.usnktkd.com>.

<sup>73</sup> Personal Communication, January 21, 2011.

<sup>74</sup> Park and Jung, “Ten Years,” 80.

<sup>75</sup> Seo and Thorson, “Academic Science Exchange,” 119.

<sup>76</sup> Park, “North Korea’s Track-Two Foreign Contacts,” 31.

<sup>77</sup> 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.

<sup>78</sup> “10,000 Trees in Flight to North Korea,” March 13, 2000, accessed December 21, 2000, <http://www.mercycorps.org/countries/northkorea/10052>.

<sup>79</sup> Austin, Chapter 7, 141.

<sup>80</sup> 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>.

<sup>81</sup> Ibid., 3.

<sup>82</sup> 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](http://www.ncnk.org/resources/publications/Feb_13_2007_Agreement.doc/file_view).

<sup>83</sup> 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.

<sup>84</sup> 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.

<sup>85</sup> Sharon Perry, Chapter 5, 123. Much of the information in the following paragraphs is drawn primarily from this chapter.

<sup>86</sup> Ibid.

<sup>87</sup> 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>.

<sup>88</sup> “About CFK,” on the Christian Friends of Korea website, accessed December 23, 2010, [http://www.cfk.org/About%20Page/AboutCFK\\_.htm](http://www.cfk.org/About%20Page/AboutCFK_.htm).

<sup>89</sup> Perry, Chapter 5, 124.

<sup>90</sup> 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](http://www.cfk.org/Newsletters/2009%20June/Final%20CFK-2.pdf).

<sup>91</sup> Ibid., 4.

<sup>92</sup> Ibid., 5.

<sup>93</sup> Ibid., 5.

<sup>94</sup> Reed, Chapter 3, 93. The following paragraphs are drawn from this chapter.

<sup>95</sup> Ibid.

<sup>96</sup> Ibid., 94.

<sup>97</sup> 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>.

<sup>98</sup> Haldeman, Chapter 1, 71–72. The following paragraphs are drawn from this chapter.

<sup>99</sup> Ibid., 73.

<sup>100</sup> Ibid., 73–74.

<sup>101</sup> Ibid., 78.

<sup>102</sup> Thorson et al., Chapter 2, 82. The following paragraphs are drawn largely from this chapter.

<sup>103</sup> Ibid., 81.

<sup>104</sup> See note 14.

<sup>105</sup> Thorson et al., Chapter 2, 83.

<sup>106</sup> Ibid.

<sup>107</sup> Ibid., 82.

<sup>108</sup> Ibid., 83.

<sup>109</sup> Ibid., 83.

<sup>110</sup> Seo and Thorson, "Academic Science Exchange," 114.

<sup>111</sup> 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>.

<sup>112</sup> Linda Staheli, Chapter 8, 153. The following paragraphs are drawn from this chapter.

<sup>113</sup> Ibid., 148.

<sup>114</sup> 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/](http://www.britishcouncil.org/new/about-us/how-we-are-run/folder_how-we-are-run/who-we-are/).

<sup>115</sup> Ireson, Chapter 4, 111; Reed, Chapter 3, 97.

<sup>116</sup> 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," *Rodong 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](http://www1.korea-np.co.jp/pk/154th_issue/2001012503.htm).

<sup>117</sup> Reed, Chapter 3, 98.

<sup>118</sup> Reed, Chapter 3, 98; Ireson, Chapter 4, 113.

<sup>119</sup> Ireson, Chapter 4, 113.

<sup>120</sup> Personal communication, November 3, 2010.

<sup>121</sup> Personal communication, December 5, 2010.

<sup>122</sup> Haldeman, Chapter 1, 74–74.

<sup>123</sup> See David Austin, “Value of Apples.”

<sup>124</sup> 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.

<sup>125</sup> Personal communication, February 3, 2011.

<sup>126</sup> Ireson, Chapter 4, 109–110.

<sup>127</sup> Ibid., 110.

<sup>128</sup> Personal communication, January 31, 2011 (Person A).

<sup>129</sup> 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.

<sup>130</sup> Ireson, Chapter 4, 112.

<sup>131</sup> Ibid., 114.

<sup>132</sup> Seo and Thorson, 119.

<sup>133</sup> Ibid.

<sup>134</sup> Thorson et al., Chapter 2, 85–85.

<sup>135</sup> Personal communication, November, 2010.

<sup>136</sup> Personal communication, December 30, 2010.

<sup>137</sup> Park and Jung, “Ten Years,” 86.

<sup>138</sup> 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>.

<sup>139</sup> “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.

<sup>140</sup> Des Houghton. “North Koreans banned from Asia-Pacific Triennial,” December 7, 2009, accessed January 10, 2011, <http://www.couriermail.com.au/news/breaking-news/north-koreans-banned-from-asia-pacific-triennial/story-e6freonf-1225807817039>.

<sup>141</sup> Ireson, Chapter 4, 116.

<sup>142</sup> *Choson Exchange* website, “Our Team,” accessed December 28, 2010, [http://chosonexchange.org/?page\\_id=4](http://chosonexchange.org/?page_id=4).

<sup>143</sup> “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/>.

<sup>144</sup> See Geoffrey, “Lessons from Introducing OpenCourseWare in North Korea,” December 26, 2010, accessed December 28, 2010, <http://chosonexchange.org/?p=658>.

<sup>145</sup> Choson Exchange Facebook Page, accessed January 16, 2011, <http://www>.

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

<sup>146</sup> “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.

<sup>147</sup> Personal communication, November 2010.

<sup>148</sup> 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/>.

<sup>149</sup> See Park and Jung, “Ten Years,” 86–87.

<sup>150</sup> Park, “North Korea’s Track-Two Foreign Contacts,” 36.

<sup>151</sup> Park, “North Korea’s Track-Two Foreign Contacts,” 30.

<sup>152</sup> Personal communication, Pyongyang, September 2010.

<sup>153</sup> “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](http://pdf.usaid.gov/pdf_docs/PDACQ494.pdf).

<sup>154</sup> 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](http://www.ncnk.org/resources/publications/Weingartner_KS_Paper_Nov_07.doc/file_view).

<sup>155</sup> *Ibid.*, 1.

<sup>156</sup> Personal communication, January 21, 2011.

<sup>157</sup> Personal communication, September 10, 2010.

<sup>158</sup> Personal communication, January 31, 2011 (Person B).

<sup>159</sup> Sang S. Kim, Personal communication, January 24, 2011.

<sup>160</sup> Frederick Carriere, Personal communication, February 3, 2011.

<sup>161</sup> Personal communication, January 31, 2011 (Person B).

<sup>162</sup> See <http://www.pyongyangproject.org/programs/delegations.html>.

<sup>163</sup> See <http://www.pyongyangproject.org/programs/think.html>.

<sup>164</sup> Frederick F. Carriere, personal communication, January 30, 2011, emphasis not in original.

# OVERVIEW AND ASSESSMENT



# CORNELL-DPRK EDUCATIONAL EXCHANGES: ASSESSMENT AND FUTURE STRATEGIES

*James Haldeman*

Over the course of the last decade, interactions involving scientists and administrators from the Democratic People's Republic of Korea (DPRK) and Cornell University (CU) have been intermittent at best. Having said that, one can point to some important activities and contributions that demonstrate an interest in and commitment to the DPRK. These activities serve as building blocks for what is hoped will be a long-term relationship.

## History

During the ten-year period between 2000 and 2010, the DPRK-CU exchanges have been facilitated by two NGOs, the American Friends Service Committee (AFSC) and the Asia Foundation (TAF), and have taken place primarily under the auspices of Cornell's International Programs/College of Agriculture and Life Sciences (IP/CALS). Examples of interactions include:

- In 2000, through TAF, Cornell sent shipments of cold-tolerant apple, grape, and strawberry lines to the Fruit Research Center located near Pyongyang. (New York and DPRK winters are similar.) This was followed by annual exchange visits by the center's director, Mr. Ri, to Cornell between 2000 and 2002.
- Following the aforementioned shipments, Cornell received several delegations of North Korean scientists at IP/CALS for visits lasting two to three days; each delegation consisted of three to four people. The North Korean delegations were interested in collaborating in the fields of horticulture and plant sciences: tree fruits, grapes, entomology, and plant breeding.
- In April 2005 Cornell was invited to New York City to meet with the DPRK Mission to the UN and a delegation from the DPRK. In this meeting, which was coordinated by TAF, there were discussions about additional steps in building cooperation. During the course of this full-day meeting, participants discussed areas of interest and the possibility of expanding the length of visits to Cornell. The meeting concluded with a feeling of optimism but was followed by a suspension in communication.
- In late 2005, the DPRK Academy of Agricultural Sciences (AAS)



again indicated an interest in developing programs with Cornell, particularly in the area of soils. As a result, Professor John Duxbury of the Department of Crop and Soil Sciences visited the DPRK. This was followed by a visit of six scientists to Cornell. Discussions centered on potential areas of collaboration and short-term (that is, three- to six-month) visits of DPRK scientists to Cornell.

- In 2006, James Haldeman, senior associate director of IP/CALS, was invited to visit the DPRK to discuss the administrative procedures involved for having small groups of scientists visit Cornell for an extended time (defined by Cornell as three months). The focus of discussions was on steps toward building a collaborative program. Priority areas identified by AAS for collaboration included:
  1. Biotechnology: Research in rice genome mapping and gene constructs.
  2. Information technology: Information technology priorities including modeling, data processing, systems for the surveillance and forecasting of pests, and land survey systems.
  3. Plant protection: Improved strains of beneficial fungi and pest management in crop production.
  4. Agriculture information: Increased access to non-DPRK journals and other scientific publications.

Also in 2006, the long-awaited shipment of rice seeds to the AAS was facilitated and the Agriculture Experiment Station in Geneva, New York, sent a selection of apple rootstocks to the Academy.

- Under the auspices of TAF, approval was given by the DPRK for a March 2009 visit by Dr. Norman Uphoff, former director of the Cornell International Institute for Food, Agriculture, and Development and leader of the System of Rice Intensification (SRI) at Cornell, and James Haldeman (IP/CALS). The visit had two primary purposes: (1) to follow up on expressed DPRK interest in SRI, a methodology for increasing the productivity of irrigated rice cultivation by changing the management of plants, soil, water, and nutrients, and (2) to reopen discussions, after a three-year lapse in communication, on the administrative procedures for having DPRK scientists at Cornell for extended periods of time.

Unfortunately, this planned visit had to be canceled for reasons for which the DPRK had no responsibility (broken travel connections and traveler health difficulties). In lieu of the visit, plans evolved for an international seminar on SRI planned and conducted in Hangzhou, China, at the end of February 2010. This event was organized and hosted by the China National Rice Research Institute

and supported by TAF. It included participation by representatives of the AFSC and the Mennonite Central Committee (MCC). Subsequently, both AFSC and TAF organized visits to China and Vietnam for DPRK delegations to allow delegates to become better acquainted with SRI and other rice-improvement methods.

- In 2009, TEEAL, the Essential Electronic Agriculture Library—a compact, self-contained agricultural library—was presented to representatives from the DPRK. TEEAL contains 149 journals, most spanning from 1993 through 2008. These journals encompass diverse fields of the agricultural sciences, from agricultural economics and crop improvement to food science, nutrition, and natural resources management. One has access to the full text of each article indexed in TEEAL, with no need for Internet access. TEEAL is easy to share on a network or to set up on a single computer. Information did find its way to Cornell from the DPRK regarding the usefulness of the TEEAL materials.

## Constraints and Lessons Learned

As one reviews the list of activities, there 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. Some of the constraints include:

1. Communication, or a lack thereof, is a major problem at all levels. There is little or no information sharing taking place within and between organizations and institutions.
2. DPRK's scientists do not have the access to the outside world granted by email and the Internet. In today's world of collaborative research, having access to reliable communication channels is an absolute necessity.
3. Because of language barriers, Cornell scientists have had great difficulties responding to requests from the DPRK. First, requests are not made scientist to scientist. Instead there is generally an intermediary in the DPRK who tries to interpret needs and then convey them through the proper channels—and eventually to Cornell. These intermediaries in the DPRK are not scientists or English speakers; thus, either they do not have an understanding and knowledge of agricultural terminology, or things are lost in

translation, or a combination of both.

4. Another key constraint is not being able to get into the field to interact with farmers, their family members and the farm managers. 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. To date this has not been possible.
5. Long lapses of time without communication are discouraging to faculty. In some cases the lapses have lasted three years or more.
6. The greatest challenge has been 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.

There have been several lost opportunities over the course of the past ten years. For example, the dean of Cornell's College of Agriculture and Life Sciences made a significant offer to the AAS—an official invitation to participate in Cornell University's International Agricultural Sciences Fellowship Program, a nine-month program focusing on agricultural science research relevant to the Academy's research objectives. Unfortunately the nine-month period was unacceptable to the DPRK.

Each side has experienced a little of the other's agricultural production and research situations and has shared some scientific knowledge and even materials (at least from the United States to the DPRK). This is the extent of the interaction and is limited by DPRK scientists' choice. DPRK scientists have sought interactions focused on state-of-the-art science—e.g., biotechnology—whereas the major agricultural need of the country is to increase food production, which can be accomplished by the application of well-known and available basic knowledge. The AAS lacks Internet and email connections, making it nearly impossible to directly follow up with the organization.

## Education Exchanges

As we consider areas of educational exchanges and think about which ones should be the focus in the coming years, one must first consider the short term, which is likely to be a period of continued instability in the DPRK and less than friendly relations between the DPRK and the United States. The initial focus should be on teaching/education given the state of the educational system in North Korea. Where possible, efforts should be made to establish and strengthen research capabilities. Language is a problem, so educational exchanges involving English conversation and scientific writing would also be very productive. Intensive English instruction is available at Cornell and at a local community college. In addition there are several South Korean

faculty members who would be able to assist with language issues. Breeding and genetics, particularly to improve cold tolerance in rice, apples, and pears and to improve disease resistance, are other priority areas to pursue. Any educational exchanges that would help to develop basic knowledge of molecular breeding strategies would be useful.

Certificate courses, two to three weeks in length, could be developed and if necessary, implemented outside of the DPRK. Eventually, DPRK students could enroll in Cornell's Masters of Professional Studies (MPS) program. This is a one-year graduate program that does not involve quantitative research. The next step would be to enroll in a PhD program. At this time, a top priority of DPRK universities is education, not research; improving the content of the curriculum and developing students' analytical skills should be top priorities. We could even consider a program similar to the one that we have in Ethiopia, where an Ethiopian student can be awarded a Cornell MPS degree without leaving his or her country.

Transnational Learning, a project of IP/CALS, brings CU's leading-edge faculty and curriculum to students around the world. Through state-of-the-art digital technologies, graduate students in Africa, South Asia, East Asia, and Mexico have access to Cornell University classes and can discuss their research projects with Cornell's faculty. Transnational Learning was created in 2002 in an effort to improve food security across the globe by giving research and educational institutions in developing countries access to current information and knowledge in the agricultural sciences. Customized digital learning packages have been drawn from over 600 lectures, covering topics such as plant breeding, crop and soil sciences, agricultural economics, horticulture, animal sciences, and communications.

In the long run, when we may see a more open DPRK and more positive and consistent relations between the DPRK and the United States, one might consider scientific exchanges that would be for longer periods of time, workshops, training programs (in the United States, DPRK and/or third countries), graduate programs, and PhD research opportunities. Many other programs will be available if and when the environment is right. Some engagements are possible even under current conditions in the North, while others require a much more stable environment.

Looking very long term, there are several excellent professional development opportunities that could become available to the DPRK or, in some cases, could be adapted to fit the needs of the DPRK. This will require an even more stable and friendly environment and will require a major financial commitment on the part of both countries.

1. *The Hubert H. Humphrey Fellowship Program*: With primary support from the U.S. Department of State, this program provides professionals from developing countries and emerging democracies an opportunity to enhance their leadership potential and managerial

skills. This non-degree program is intended to strengthen and develop the Fellows' capacities to assure greater professional responsibilities, to give them an opportunity to broaden their perspectives, and to establish international professional contacts.

2. *Brain Korea 21*: This program could be tailored to fit the needs of the DPRK. Initiated by South Korea's Ministry of Education, this program targeted seven important fields in science and technology necessary for enhancing national competitiveness in the twenty-first century. The objective of BK21 is to produce the next generation of world-class leaders in selected fields by upgrading research infrastructure and graduate-level training in Korea. PhD students from Seoul National University came to Cornell for periods of three to twelve months to carry out part of their research. Each student was paired with a Cornell faculty member who was carrying out similar research.
3. *The Tang Cornell-China Scholars Program*: Established in 1999 and funded by the Tang family, the goal of the program is to enhance scientific and technological collaboration throughout the world by developing cooperative relationships between the best scholars at the threshold of their careers in China, and established research and education leaders at CU. The program was designed to provide opportunities for the most distinguished scholars from the People's Republic of China—those in the early stages of careers in the agricultural and biological sciences and biological engineering—to spend up to two years at CU undertaking research in their field of specialty.

## Strategies

Emphasis needs to be placed on educational exchanges that help to strengthen the DPRK university system. We must be careful not to overestimate the capacity of the North Korean universities. Their infrastructure is poor; they have had very little access to current information; and their main function is to teach. Extension and research are coordinated by the Ministry of Agriculture, so the primary mission of the university is educational. For them to progress, improving the quality of the education that students receive is a top priority.

A strategy that deserves serious consideration is to train young scientists through shorter scientific exchange visits, as young people are more open to change. Shorter exchanges could be focused on specific topics that would improve DPRK capacity in a way that could have some impact when they return home. Various information technologies would be relevant, of which geographic information systems (GIS) is one example. Resource-conserving technologies in agricultural production could be another topic that would

be relevant to the DPRK situation.

Starting educational exchanges focused on learning to communicate in English, both verbally and in writing, would be helpful. Cornell would welcome visiting scholars and PhD students, although not at the moment because it may be difficult to identify people who have the necessary background. Starting with certificate courses and then going to the Masters of Professional Studies (MPS) makes sense, as does the prospect of progressing in several years to PhD programs.

Improving the content of the curriculum and the development of students' analytical skills should be top priorities. With those improvements made, there would be a cadre of scientists with whom we could work. This would not be training for the sake of training. PhDs could be the start of long-term professional relationships between DPRK and Cornell scientists and institutional partnerships. Priority areas for study and research would include agriculture (for example, getting seed and other plant materials imported or applying "molecular breeding" strategies to rice improvement), engineering, and technical areas such as TEEAL.

Key factors leading to the success of a cooperative effort are continuity and ensuring that those responsible for the program know exactly what kind of results they are seeking and the ways in which to attain them. The broad outline of any program must be established at the very beginning. Enough time must be allocated to secure results. There need to be adequately trained people who can maintain continuity, particularly when working in an unstable environment. A good example of a program that demonstrated these characteristics is the Cornell-Nanking Cooperative Crop Improvement Program (CIP) conducted approximately 85 years ago. More recent successes have also occurred.

During the 1920s and 1930s, Cornell became involved in China in a very significant way. Annual famines were common and the country was experiencing major political instability. The CIP was developed with a period of five to ten years for its completion. It was endorsed by Cornell's president, the dean of Cornell's College of Agriculture, and the dean of the University of Nanking. It was approved by the Board of Trustees at Cornell and by authorities at the University of Nanking.

The program was carried out very successfully during the period between 1925 and 1931, even during some very unstable times. In 1927, the Revolutionary Army reached Nanking and the ensuing disturbances caused the evacuation of all consular staff and other foreign residents in Nanking. However,

[i]n spite of civil wars and the major military disturbances of 1927, no damage was done to the Crop Improvement Program, no plantings were harmed and no seed lost. Much credit must be given to the Chinese associates for their dedication, courage, perseverance and the tact under extremely difficult

circumstances.<sup>1</sup>

The program was successful. Its effects are still evident today as a result of the large number of Chinese specialists in crop improvement that were trained during this period, making it possible for the University of Nanking to maintain its program despite the unstable political conditions. A second effort was initiated in 1930 to achieve comparable results in other parts of China that had been affected by yearly famines for centuries.

An important purpose of CIP was to leave in China a group of well-trained men who could carry on and expand the work after the Cornell representatives had left. This training was carried out by formal lectures and by Summer Institutes. Information training was a continuous process, whether in the office, laboratory or field. By the end of the program, all had come to feel that this had been Cornell's single most important contribution.<sup>2</sup>

The Nanking project has been regarded as a model for institution-building agricultural development because of its emphasis on training Chinese scientists to carry on the crop improvement program. Noteworthy was its multidisciplinary nature; the technical assistance in plant breeding was supplemented by Cornell faculty working in entomology, agricultural economics, and other disciplines.

Patience is key in any successful partnership. Cornell's investments in China in the 1920s carried through some very difficult times and helped to make possible a renewal of the partnership, which is stronger today. Following nearly 50 years of inactivity due to the political situation in China, doors reopened in the late 1970s. Soon afterward the dean of Cornell's College of Agriculture visited Nanking Agricultural University, with support from the U.S. Department of Agriculture, and reestablished ties with Nanking. One outcome of this visit was the establishment of a Nanking-Cornell partnership where several young Nanking faculty members were provided assistantships to complete PhD programs in Cornell's College of Agriculture. This was the first step towards reestablishing long-term scientific collaboration.

It is important to continue to be open to visits from DPRK professionals, individuals, or delegations and, if possible, to the idea of short-term residential hosting of researchers and/or teachers. There is huge intellectual talent, though underdeveloped, in the DPRK, and so it is important to establish an environment in which a true partnership can be realized that would provide opportunities to train scientists is important.

Other strategies include:

- Continuing to work with a trusted partner such as TAF, which has been instrumental in bringing Cornell into discussions with the DPRK.
- Organizing and conducting workshops and conferences in third

countries, similar to the SRI workshop carried out in China.

- Updating TEEAL annually. Updates are shipped to current subscribers every December on a small set of DVDs. In addition, the North Koreans will require TEEAL training in the future. Existing libraries are poor so people need to learn how to use a library in addition to learning how to use TEEAL.
- Establishing relationships with DPRK scientists at international meetings. (They are occasionally in attendance.)
- Identifying top scholars in the DPRK.
- Developing a LISTSERV of U.S. universities and other institutions involved in the DPRK. Further, serious consideration should be given to forming a consortium among these universities with a coordinated program.
- Opening discussions with the U.S. Department of State and the Bureau of Educational and Cultural Affairs regarding possible DPRK involvement in the Hubert H. Humphrey Fellowship Program.
- Establishing some relationships with South Korean institutions that are interested in future partnerships with institutions in the DPRK.

Cornell has a very strong international commitment. In CALS, of the 380 faculty members, 70 are designated international professors. To be designated an international professor, one must devote a significant portion of his or her time to international activities. Cornell, like many other institutions, is inundated with opportunities for international collaboration. Priority is given to those opportunities where the cooperation can be mutually beneficial and result in long-term engagement.

For Cornell, engaging in activities that further strengthen its teaching and/or research program is very important. Financial resources must be available and reliable means of communication are key. Cooperation and collaboration need to take place in an environment that is not labor intensive. If Cornell is to invest resources, faculty and administrators must see a strong commitment on the part of DPRK educators, researchers, and officials.

With a mind to the future, when we may see political stability in the DPRK and more positive and consistent relations between the DPRK and the United States, there are a number of steps that an institution such as Cornell could take to build on past successes and position itself for a mutually beneficial collaboration with the DPRK. For now, it makes sense to maintain a low-profile program with the DPRK that would, hopefully, become more institutionalized over time.



## Notes

<sup>1</sup>Harry Houser Love and John Harry Eisner, *The Cornell-Nanking Story: The First International Technical Cooperation Program in Agriculture by Cornell University* (Ithaca, New York: Cornell University, 1963), 4.

<sup>2</sup>Love and Eisner, *The Cornell-Nanking Story*, 13.

## NOTES ON THE SU-KCUT RESEARCH COLLABORATION AND EXCHANGE PROGRAM<sup>1</sup>

***Stuart J. Thorson, Frederick F. Carriere,  
Jongwoo Han, and Thomas D. Harblin***

The practice of university science, like so many other human activities, is being dramatically altered by the pervasive presence of high-speed digital networks. These networks have facilitated cross-national data sharing and active collaboration among scientists widely separated by terrestrial geography. C. S. Wagner documents how science, once largely a product of national science and technology policy and funding, is becoming driven by invisible colleges of scientists from around the globe connected via modern communications networks.<sup>2</sup>

Of course, these networks of scientists, like the underlying digital networks that support them, are not distributed uniformly. Rather, some parts of the world are better connected than are others. A look at the world's major communications routes shows the largest bandwidth to be located primarily in (and connecting) the United States, Europe, and Asia.<sup>3</sup> Similar patterns emerge when one examines the world's leading universities. For example, Ortega and Aguillo mapped web links between the top 1000 world universities and concluded, "The results show that the world-class university network is constituted from national subnetworks that merge in a central core where the principal universities of each country pull their networks toward international link relationships. The United States dominates the world network; within Europe stands out the British and the German subnetworks."<sup>4</sup> North Korea and its universities are not significant players in any of these contemporary networks. Many of their academics are aware of this (see the discussion below) and this awareness has led to a willingness to build collaborative exchanges with other major research universities—even those in the United States. There exist significant opportunities to identify areas of mutually beneficial enduring academic cooperation between the United States and North Korea. This brief chapter provides an outline of one such cooperative venture and concludes with some suggestions for increasing academic exchange and

research collaboration between the United States and North Korea.

### KCUT Collaboration

In late spring of 2001, representatives of Syracuse University (Harblin and Thorson) met in New York with Donald Gregg (then president of the Korea Society [TKS]) and Frederick Carriere (then TKS executive director and vice president) to discuss the possibility of a research collaboration in information technology between Syracuse University (SU) and a university in North Korea (Democratic People's Republic of Korea or DPRK). Neither Thorson nor Harblin was a Korea expert, though Thorson had worked on e-Government projects in South Korea and had also done related work in China and Russia. Gregg responded positively to the SU expression of interest and immediately arranged a meeting for Harblin and Thorson, together with Carriere, at the DPRK Mission to the United Nations in New York. The talks with the Mission were encouraging, and later that spring a delegation from the Mission, led by DPRK's permanent representative to the UN, together with Gregg and Carriere visited SU at the invitation of then SU Chancellor Kenneth Shaw. Jongwoo Han, a key member of the SU team, provided valuable counsel regarding protocol for the visit. At the closing dinner, Chancellor Shaw and members of the SU Board of Trustees articulated a strong desire by SU to extend its involvement on the Korean Peninsula to include the DPRK. As we later learned, this clear expression of university-level commitment was quite important to the DPRK's (as well as TKS's) willingness to engage with SU.

The site visit by the DPRK to SU went well and, ultimately, the Mission suggested that Kim Chaek University of Technology (KCUT) would be an appropriate partner for SU. KCUT, located in Pyongyang and named after General Kim Chaek, who fought alongside Kim Il-sung in Manchuria, is the leading technical university in North Korea. Kim Il-sung University, KCUT, and the State Academy of Science's University of the Sciences are arguably at present the top science and IT research universities in the DPRK. Interestingly, it has been reported that Kim Jong-il visited KCUT in September of 2001 and formally advised the university to construct a digital library. As it would turn out, standards-based open source software for that library became the central shared research focus for the early meetings between KCUT and SU.

Once KCUT was identified as SU's partner institution in the DPRK, SU and KCUT each agreed to provide a group of researchers. The interdisciplinary SU team was composed of faculty members and researchers from the Maxwell School, the L.C. Smith College of Engineering and Computer Science, and the School of Information Studies as well as the Systems Assurance Institute, the English Language Institute, and the University Library. The director of KCUT's Information (Computer) Center led the KCUT team.

A delegation led by KCUT Vice Chancellor Jong Kwan Chon visited SU

in March 2002. The main focuses of these meetings were on building trust, identifying shared research priorities, and establishing some basic operating principles. For example, all quickly 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. It was also agreed that despite technical and political difficulties in communications between the US and DPRK<sup>5</sup> we would make every effort to share information between delegation visits.

In this regard the importance of the effective facilitation of communication by both the DPRK Mission and TKS cannot be overstated.

The success of this first visit led to an invitation to SU to send a science delegation to KCUT in June 2002. During these meetings in Pyongyang both sides agreed to expand resource commitments under a written plan which established the leadership of a KCUT-SU Joint Coordinating Group (JCG). In December 2002 KCUT returned to SU for a meeting of the JCG. This meeting produced an agreement to send a team of research scholars from KCUT to SU in spring of 2003 to work with SU researchers on projects including digital libraries, machine translation, and decision support.

Five KCUT researchers together with one protocol officer/translator<sup>6</sup> arrived in Syracuse in April 2003 for one month of intensive research collaboration with SU scholars. The director of the KCUT Information Center, who has participated in every joint KCUT-SU meeting to date, led the KCUT delegation. Research meetings were conducted in English and dealt with digital libraries, decision support, formal methods for proving program correctness, and English language training. These sessions resulted in science presentations in English of research results by KCUT and SU participants and an academic paper, written jointly by representatives of KCUT, SU, the DPRK UN Mission, and TKS, presented at the APSAC meetings at the East/West Center in June 2003.<sup>7</sup>

An outcome with long-range important consequences was the adoption by the KCUT digital library of the Dublin Core<sup>8</sup> for encoding semantic information library contents.<sup>9</sup> Among other things, a digital library replaces the traditional physical card catalog with a computer-driven and remotely accessible directory of library holdings. At the time that the KCUT-SU collaboration began, there was, to our knowledge, no digital library in North Korea.<sup>10</sup> However, KCUT was in the early stages of designing a digital library and a construction site had been identified. As a consequence of the 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.

KCUT Vice Chancellor Jong again headed a team of five KCUT researchers and one protocol officer to SU in March 2004. All KCUT researchers had

been to SU previously, and the central research focus remained on adapting open source software to support the KCUT digital library. Researchers from both SU and KCUT gave research presentations in English at the end of the program. That the visits could be conducted in English reflected both the dedicated effort of the Koreans together with a strong training program provided by staff from SU's English Language Institute.

The research collaboration was producing tangible results. In November 2005 KCUT, SU, and TKS agreed to undertake efforts designed to enhance the program. SU Chancellor Nancy Cantor, Korea Society Chairman Donald Gregg, and KCUT Chancellor Hong So Hon signed a memorandum of understanding in Syracuse to expand the existing scientific research collaboration. The parties agreed, subject to export control and licensing considerations, (1) to implement twin integrated information technology labs (Twin Labs) at KCUT and SU to enhance and accelerate further joint research; (2) to continue the successful technical English language training programs begun in Beijing in August 2005 as the first step in the development of the Regional Scholars and Leaders Seminar program (RSLs); and (3) to exchange students and junior faculty members from each other's institution.

Following up on the MOU, SU submitted a licensing request to the U.S. Commerce Department in 2005 for permission to export a small quantity of low-level computing equipment for a Twin Lab at the KCUT digital library. (An identical lab would be located at SU.) While this request was denied, finally the denial was made on foreign policy grounds rather than national security ones. As it turned out, the request was considered at a low point in the Six-Party Talks, when the political atmosphere in Washington was extremely negative with regard to the DPRK.

KCUT's digital library opened in January 2006. Lab space was set aside within the complex to house ongoing research activities of the SU-KCUT research collaboration. During the 2008 visit of the New York Philharmonic Orchestra to Pyongyang, journalists were shown the digital library and one reported being able to access her Facebook account from the library.

Subsequent to the export license request denial by the U.S. Government (USG) and as an expression of good faith, SU sent a shipment of uncontrolled items including lab desks, chairs, tables, and file cabinets to KCUT in spring of 2007. Work on the establishment of a Twin Lab at KCUT remains a priority and SU expects again to initiate an export control request. (This process has been delayed by the political environment following the sinking of the *Cheonan*.) Also, in accordance with the 2005 agreement, a three-week technical English program was held in Beijing in 2006 and 2007. With regard to the scientist exchange program, SU and the Korea Society, with the collaboration of Korea Fulbright Foundation, received a grant from the United Board for Christian Higher Education in Asia to support a five-year program designed to bring five to six DPRK junior faculty members annually

to SU. To date no scholars have come to the United States under this program and the grant has expired.

In January 2010 KCUT Chancellor Hong and three colleagues (including the KCUT team leader) made a second trip to Syracuse. A main agenda item was to see if a way could be found to send KCUT junior faculty to SU for an extended period of research and study. Note that the DPRK is already sending researchers for extended periods to countries such as the UK, Germany, and Canada. The situation with regard to the United States is, of course, caught up in larger political issues such as the movement toward normalizing diplomatic relations between the two countries. These sessions were collegial and constructive. SU Chancellor Cantor reiterated SU's long-term commitment to its relationship with higher education in the DPRK generally and to KCUT in particular. Chancellor Hong responded by inviting Chancellor Cantor to visit KCUT. In addition, a new shared research priority was identified: green data centers.

In response to Chancellor Hong's invitation and in collaboration with the American Association of Universities<sup>11</sup> (AAU), SU Chancellor Cantor has agreed to lead a delegation of AAU presidents to meet with counterparts in the DPRK. Financial support has been provided by the Henry Luce and Richard Lounsbery Foundations. The DPRK has agreed to host the delegation, though precise timing will depend, to a large extent, upon the larger geopolitical environment.

## Scaling Up

The scope assigned for this chapter was the bilateral exchange relationship between SU and KCUT. However, it is important to note that the hope has always been to grow this effort beyond SU and KCUT. In particular, the KCUT-SU relationship has gone through a series of phases. The first phase, reported on here, had as its primary research focus the adaptation of open source software for use as back-end support in the library and the identification of appropriate international standards for use in categorizing information held in the library. The second phase, the Regional Scholars and Leaders Seminar program, enlarged participation to include China and South Korea in addition to North Korea and the United States.<sup>12</sup> The RSLS sessions were held in Beijing and emphasized information sharing and developing language and presentation skills necessary for participating in international scientific meetings. The third phase involved North Korean undergraduate teams of computer scientists participating in the Association for Computing Machinery's (ACM) annual International Collegiate Programming Contest.<sup>13</sup> This was the first time North Korean teams had ever participated in this international science competition. The fourth phase saw the establishment of the U.S.-DPRK Scientific Engagement Consortium aimed at exploring

collaborative academic scientific activities between the two countries. This latter activity is reported on in chapter 8 of this volume.

### Concluding Thoughts

1. In the present political environment, sustained engagement by a U.S. university with a DPRK counterpart requires an informed understanding and commitment on the part of the university's top administrative officers. This understanding should include awareness that there almost certainly will be ups and downs in the relationship and that bridge funding may at times be required to keep initiatives alive. SU has been fortunate to have had chancellors and board members who value the important role universities can play in opening productive relationships with countries with whom the United States has significant political differences.
2. Related to the point above, it is a difficult environment in which to obtain external funding. Often what is required is flexible discretionary funding that permits quick responses to collaborative opportunities when they arise. An example would be the workshops SU and TKS conducted in response to the DPRK desire to field teams in the ACM intercollegiate computing contest. Yet, especially in these economic times, it is often difficult for a funding agency to provide support absent a lengthy review process and a clear statement of deliverables. SU and TKS have been especially fortunate that the Henry Luce Foundation, the Richard Lounsbery Foundation, the United Board for Christian Higher Education in Asia, and several private donors have been willing to provide much needed flexible financial support.
3. 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."<sup>14</sup> Moreover, opportunities for cooperation often emerge in unplanned ways. As an example, the DPRK's involvement in the ACM Intercollegiate Programming Contest came about as a result of the SU-KCUT collaboration but participation involved DPRK universities beyond KCUT.
4. All parties should have some "skin in the game." It is important to develop a sense of what each party can do to help move collaboration forward. SU was able to locate financial support for travel and living

costs. KCUT constructed a digital library, allocated scarce human resources to the collaboration, and helped with in-country expenses when the SU team was in the DPRK.

5. More broadly, efforts should be made to encourage longer-term faculty, and ultimately student, exchanges between the DPRK and the United States. A goal here should be to realize the Korean Fulbrighters' hope for a peninsula-wide Fulbright program.<sup>15</sup> However, political realities render a named and USG-funded Fulbright program unlikely in the United States and the Koreas at this point. So, as an initial step private funding should be identified that could support a Fulbright-like effort in the hopes that the political atmosphere would eventually make a full Fulbright program possible.<sup>16</sup>

Such a program would provide future academic leaders in the North a window on educational systems that are quite different from their own. And this would provide a softer and perhaps more palatable introduction to these differences than if they were initially to have similar exchanges with the South.

6. If such exchange programs were to move forward in the sciences they would quickly run up against the antiquated export control regime of the United States. 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 that 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. Moreover, 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. It is tempting to argue that these controls are necessary for national security. And doubtless some are. However, it is also important to note that open collaborations (of a sort that would almost certainly run afoul of current deemed export restrictions) among working scientists characterized relationships between Soviet and U.S. academic scientists during the Cold War. Indeed, Caltech Feynman Professor Emeritus (theoretical physics) Kip Thorne, who participated in many such exchanges, has suggested that these played an important role in the peaceful ending of the Cold War.<sup>17</sup> Finally, much equipment falling under these controls is easily available for purchase throughout China and is present at DPRK universities and



technical institutes. The bottom line here is that we should move toward export policies that facilitate the free flow of ideas.<sup>18</sup> If we evince fear of the spread of ideas we should not be overly surprised when those with whom we disagree do the same.

7. Academic exchanges are but the tip of an iceberg composed of many academic procedures, legal agreements, regulations, and understandings. If these are not attended to, relationships will fail. Included here is everything from visas, housing, health insurance, food, and banking to the evaluation of transcripts, coordination (and even definition) of credits, and types of degrees. One way of beginning to build trust would be to work collaboratively on a web-based, culturally empathetic concordance of DPRK, U.S., and ROK academic terms and regulations. The ongoing construction and refinement of such a concordance would be useful to participants (a similar project was completed with the first waves of post-Soviet scholars coming to Syracuse) and, importantly, the result would be helpful to all those thinking about participating in exchanges.
8. Find areas “safe” to both the U.S. government and the DPRK within which to develop programs. Each country has its third rail issues (nuclear technology, biotechnology, human rights, and so on). There remains, however, a huge area within which collaboration is feasible. The SU experience has been that as trust builds so widen the areas of allowable cooperation.
9. Internet connectivity, as was argued above, is becoming increasingly central to a university participating in the world of education. It is a positive sign that DPRK now has its own country code top-level domain (.kp). Within DPRK there is a widely-used academic internet. DPRK students are familiar with the use of web browsers and the use of web resources. However, this internet is a “walled garden” isolated from the larger global Internet. At the same time the capacity to connect to the Internet is present. (Reporters covering the recent 65th anniversary of the DPRK ruling party found a modern media center permitting Internet access from their personal computers set up for their use at Koryo hotel.) As argued above, today’s research universities simply cannot afford to be isolated from the dynamism of the Web. In this regard, the apparent official agreement by the DPRK government to permit Pyongyang University of Science and Technology students fairly open web access is a positive sign. More generally, it should be hoped that the DPRK will engage in more academic projects involving Internet-based collaboration and that USG policy will encourage such connectivity (and this relates back to

current export control policy). It may be a good omen that recently in San Francisco, Secretary of State Clinton, while discussing Syrian students' use of the Internet to criticize officials, said, "That's why the United States in the Obama Administration is such a strong advocate for the 'freedom to connect.' And earlier this year, last January I have a speech [sic] our commitment to Internet freedom, which, if you think about it, is the freedom to assemble, the freedom to freely express yourself, the right of all people to connect to the Internet and to each other, to access information, to share their views, participate in global debates."<sup>19</sup> Perhaps following the statement of Secretary Clinton the USG will see fit to permit export to the DPRK of equipment helpful to more widespread connectivity with the Internet.

10. We have found the DPRK scholars with whom we have worked to be serious, skilled, and sincere. They are eager for collaboration and are as curious about how our universities are organized for the multiple purposes of teaching, research, and community service as we are about theirs. That there are not more links between our universities is costly for all involved. The longer this remains the case, the more difficult it will be to remedy the situation and we hope that the suggestions made above are helpful as starting points for generating and implementing responses to this unfortunate and ultimately costly situation. If we want a better future, we must all work to create it.

## Notes

<sup>1</sup> The work reported here was supported in part by grants from the Henry Luce and Richard Lounsbery Foundations.

<sup>2</sup> C.S. Wagner, *The New Invisible College: Science for Development* (Brookings Institution Press, 2008).

<sup>3</sup> Hyunjin Seo, *Structure of National Image in the Age of Networks: An empirical analysis of online social relations and information use* (unpublished PhD dissertation, Syracuse University, 2010).

<sup>4</sup> J.L. Ortega and I.F. Aguillo, "Mapping world-class universities on the web," *Information Processing & Management*, 45, 2 (March 2009), 272-279.

<sup>5</sup> A member of the DPRK group commented that at that time there were fewer than ten netmen in the DPRK with unfettered access to the Internet. At the same time there were said to be only two telephone lines, one primarily for fax and the other for voice between the Mission in New York and Pyongyang.

<sup>6</sup> From the Flood Damage Rehabilitation Committee or FDRC. FDRC was a standing committee of the DPRK Ministry of Foreign Affairs. FDRC later morphed into the Korea America Private Exchange Society (KAPES), also affiliated with the Ministry of Foreign Affairs.

<sup>7</sup> Thae Song Sin, Hak Su Kim, Stuart J Thorson, Thomas D. Harblin, Donald P. Gregg, Frederic F. Carriere, Song Ryol Han, and Song Nam An, "Bilateral research collaboration between Kim Chaek University of Technology (DPRK) and Syracuse

## OVERVIEW AND ASSESSMENT

University (US) in the area of integrated information technology,” Asian Studies on the Pacific Coast Annual Meeting, 2003.

<sup>8</sup> Dublin Core Metadata Initiative. <http://dublincore.org>.

<sup>9</sup> In our original meeting with KCUT officials they were planning to use a unique encoding system (and associated proprietary software) developed in the DPRK.

<sup>10</sup> Kim Il-sung University is now about to open its digital library, the University of Sciences is nearing ground-breaking on its first digital library and the Yongbyon science facility now has a digital library. In meetings with representatives of the State Academy of Sciences last December, one of us was told that these libraries were, with the possible exception of the one at Yongbyon, all patterned after the KCUT facility

<sup>11</sup> The AAU is a very significant collaborator here. It comprises top public and private research universities in the United States and Canada. Having presidents from some of these universities beginning to think about engagement with the DPRK is an important, even necessary, step in developing the requisite institutional trust for expanding exchanges with the North.

<sup>12</sup> H. Seo and S. Thorson, “Academic science engagement with North Korea,” KEI Academic Paper Series on Korea, 4, 4 (2009).

<sup>13</sup> Stuart Thorson and Frederick F. Carriere, “Dark horse,” NCNK Newsletter (March 2007).

<sup>14</sup> Richard Stone, “Will Korea’s computer-savvy crown prince embrace reform?” *Science* 330 (October 8, 2010): 161.

<sup>15</sup> Korean-American Educational Commission. “World peace and the Fulbright program, the Fulbright conference and banquet for the 50th anniversary of the Fulbright program in Korea” (Seoul, Republic of Korea, 2000).

<sup>16</sup> For an argument as to why starting these kinds of programs earlier rather than later is cost effective, see J. Agresto, *Mugged by reality: The Liberation of Iraq and the Failure of Good Intentions* (Encounter Books, 2007).

<sup>17</sup> Personal communication, USC, February 2010.

<sup>18</sup> Mitchel B. Wallerstein, “Losing controls: How U.S. export restrictions jeopardize national security and harm competitiveness,” *Foreign Affairs* (November/December 2009).

<sup>19</sup> Hilary Clinton, <http://www.state.gov/secretary/rm/2010/10/149542.htm>, October 2010.

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# SOME LESSONS BASED ON U.S. NON- GOVERNMENTAL ENGAGEMENT WITH NORTH KOREA<sup>1</sup>

*Edward P. Reed*

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. The Asia Foundation (TAF) has pursued this aim primarily by facilitating dialogue and exchange between North Korean professionals and their counterparts in the United States and Asia. The content of the program has been varied, with the primary topics being international legal issues, agriculture, and English teaching methodologies. For the most part TAF has responded to interests expressed by North Korean counterparts, as long as these interests could potentially contribute to addressing development problems. Priority has also been placed on arranging for delegations of North Koreans to come to the United States, where they could make professional contacts, observe U.S. society and, in some cases, participate in Track Two dialogues. Nevertheless, TAF has organized educational programs in China and other Asian countries when doing so has seemed most practical and beneficial.

## Types of Programs

### *Study Visits to the United States*

Seven delegations of North Koreans have visited the United States with Asia Foundation support since the year 2000, as part of programs focused on one of four areas: agriculture, teaching English as a second language, library sciences and information technologies, and non-governmental organization (NGO) liaison.

- **Agriculture:** Four visits by agricultural specialists, one to the University of California, Davis (2000) and three to Cornell University (2000, 2001, 2005). In 2001, TAF facilitated a donation by Cornell of 10,000

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fruit cuttings for re-planting in North Korea. Members of the Cornell faculty have visited North Korea on three occasions (2001, 2005, 2006). During one visit, a Cornell scientist delivered a lecture on soils management to specialists of the Academy of Agricultural Sciences (AAS). In late 2008, North Korea invited TAF to arrange the visit of a Cornell rice scientist to the AAS, but this trip was canceled at the last minute due to a health problem of the scientist. Since 2006, the goal of these exchanges has been 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.

- **English Teaching Methodology:** Senior officials and staff of the Pyongyang University of Foreign Studies (PUFS) visited U.S. universities with specialized programs in teaching English as a second language (2002). A visit to Columbia University's TESL program was included in the program of a DPRK delegation to the United States in 2007. TAF invited the Chancellor and several senior faculty of PUFS to visit universities in the United States, but this visit did not occur. TAF staff have visited PUFS on several occasions in order to maintain this connection and follow up on book donations provided to PUFS.
- **Information Science and Technology:** TAF arranged for the participation of three DPRK IT specialists in a joint Unicode international working group on converting Korean-language characters into standardized machine language held in the United States (2000). Officials and staff of the Grand People's Study House and several universities visited the United States for exposure to library and information science facilities, technology, and practices (2002).
- **NGO Dialogue:** TAF organized a visit to the United States by a senior delegation from the Flood Damage Rehabilitation Committee (at that time, the DPRK's designated liaison with foreign NGOs) to hold dialogues in three locations with U.S. NGOs that conduct direct support programs in the DPRK (2005).
- In 2007 and 2008, in response to expressed interest of DPRK counterparts, TAF offered to organize additional study trips to the United States focusing on banking and finance, teaching English as a second language, and urban planning and infrastructure development. TAF also encouraged the continuation of the exchange program with Cornell. However, the counterpart informed TAF that participation in programs in the United States was not possible during that time period.

*Activities Outside the United States*

- **Economics and Business:** In 1997, TAF provided travel and partial tuition support so as to enable six DPRK economists to participate in a year-long program on international business and economics at Australian National University.
- **International Trade Law:** Between December 1998 and April 2001, TAF organized and sponsored four training seminars for DPRK legal specialists in Beijing and Shanghai. Each seminar involved 12–15 DPRK participants and focused on such topics as contract law, international commercial arbitration, bankruptcy law, and company law. Under the academic direction of Professor Jerome Cohen, of New York University Law School, instructors for the seminars were drawn from NYU, the University of Washington, and Chinese universities and law firms. TAF's offer to sustain and expand this program was not accepted by the North Koreans.
- **Agriculture:** Since early 2010 TAF has worked with the China National Rice Research Institute (CNRRI), based in Hangzhou, to arrange workshops and field trips in China for scientists from the DPRK Academy of Agricultural Sciences. This is a triangular arrangement by which the CNRRI organizes programs in consultation with TAF and hosts the visiting DPRK delegations; TAF provides financial support and joins the delegations during their visits to China. TAF has also supported AAS visits to the International Rice Research Institute in the Philippines to encourage long-term cooperation on food security.
- **Participation in Regional Meetings:** The Asia Foundation has provided support to enable DPRK specialists to participate in international meetings primarily related to security issues. This is a form of cooperation that has continued in spite of fluctuation in the political environment. Since 2001, TAF has supported participation by staff of the North Korean Institute for Disarmament and Peace in regional meetings organized by the Council on Security Cooperation in the Asia Pacific (CSCAP). Other meetings have included three workshops organized by the Institute for Science and International Security (ISIS) conducted in Berlin in 2003 and 2004 and an Uppsala University conference on conflict management in Northeast Asia in 2004.

*Books Contributions*

As part of TAF's region-wide Books for Asia Program, since 1999 TAF has made annual shipments of English-language textbooks and other educational materials to the Grand People's Study House in Pyongyang and



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several major universities. The total number of items shipped now comes to over 130,000 volumes. The Books program represents the most important material contribution made by TAF to the DPRK. It has served as a sustained expression of goodwill and also, apparently, as a rationale for counterparts to cooperate with TAF in less tangible areas.

## Some General Considerations

### *Is the DPRK a “Developing Country”?*

According to widely accepted economic data, the DPRK can be classified as a “low income” developing country. A food security crisis has persisted for some fifteen years. Infrastructure outside of Pyongyang is undeveloped or seriously deteriorated. Investment and international trade are extremely limited. However, as we all know, the DPRK can more accurately be described as a collapsed semi-industrial economy, and these observations are not the whole picture. There is almost universal literacy and the level of education is high, though the content of textbooks and other educational materials is narrow and in some cases out of date. There is a large and skilled, but largely idle, industrial workforce. The health care infrastructure is well developed, though there is a serious shortage of medical equipment and supplies. The important point in regard to developing educational programs is that the DPRK does not consider itself a “developing country.” And, in fact, it has real strengths that can be built on.

### *Politics Rules*

In the DPRK, important decisions about almost every aspect of life are determined by political guidance passed down through the Korean Workers’ Party or bureaucratic channels. Certainly, any contact or cooperation with an international entity is strictly governed by political considerations, and cooperation with a U.S. organization even more so. Discussions and negotiations with technocrats or educators normally take place in the presence of a political officer who will ultimately determine the final outcome in consultation with his superiors. What looks like agreement at the technical level may not hold up in the long run.

### *Stovepipe Bureaucracy*

The DPRK is a command society; all authority, policy, and direction flows vertically from top to bottom. However, there appears to be little horizontal communication between units of the government, or sometimes even between offices of the same institution. This places an extreme constraint on efforts to strengthen institutional capacity through training and exchanges. Participants in educational activities outside the country seem to have limited opportunities to share what they have learned within their own institutions. Also, similar

requests for assistance may be made to international organizations from different units of the same institution.

### *Why Strengthen DPRK Institutions?*

There is the widespread view that the current policies of the DPRK do not support a sustainable economy. If such is the case, why should the premise and institutions on which the system is built be supported or strengthened? One approach is to focus on institutions that will be important in any transition that the DPRK undergoes in the future (and, of course, to avoid strengthening institutions that are critical for upholding the current structures). Another is to consider exchanges as opportunities to stretch and build individual capacity that can be applied in whatever future context might emerge. Nevertheless, this is an important issue that any international institution should consider and respond to.

## **Analysis of Exchange Experience**

### *Elements for Success*

- Clarity and Agreement on Objectives:** Basically, there have been three kinds of exchanges between the United States and the DPRK: political, technical and mixed. There are Track Two exchanges/seminars where the purpose is clear and the DPRK delegation is composed of government or Workers' Party members ready to engage (to the extent of their brief) on political topics. There are technical exchanges where the purpose is to gain knowledge, obtain some specific assistance, and in some cases explore possibilities for further cooperation. The delegation will include some technical persons competent in the field of focus and at least one political officer. However, 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. In such cases the U.S. host should not expect serious technical involvement or follow-up, and the DPRK delegation's goals will probably not match the stated technical purpose. It is important that the host organization understand the DPRK's purpose; otherwise serious frustrations and misunderstandings may occur.
- Initiative on the DPRK side:** There are many good external analyses of what ails the DPRK and what is needed to address its problems. A U.S. organization may be surprised when the DPRK resists participating in a program to address what seems to be an obvious and serious problem

identified by the U.S. side, or when the DPRK sends a delegation that does not correspond to a program's purpose. Successful and sustained cooperation has been more likely when the DPRK has identified the problem and sought assistance, or responded to offers that match an identified need. Of course, this is a general rule in any kind of cooperation. A problem arises, however, when the DPRK identifies problems that appear marginal or solutions that seem inappropriate or even bizarre. One way of dealing with this problem is the menu approach. An institution can provide the DPRK counterpart with a list of programs or topics on which it is prepared to cooperate, and then follow up on those selected by the DPRK counterpart.

- **Institutional Linkages:** As elsewhere, successful educational exchange programs are built on substantive and sustained two-way institutional interaction. Short-term visits lead to institutional MOUs that create the framework for the exchange of students and faculty and the development of joint research programs. TAF has made efforts to facilitate the development of such a relationship between the international agricultural program of Cornell University and the Academy of Agricultural Sciences of the DPRK. Syracuse University has progressed further in developing an institutional relationship with Kim Chaek University of Science and Technology. In both cases the importance, as well as the challenges, of developing such relationships with the DPRK have been demonstrated. Even if the U.S. State Department agrees to issues visas, the DPRK has not signaled that it is prepared to send students or faculty to the U.S. university for any length of time, nor to host U.S. faculty at its institutions. Nevertheless, institutional agreements can be important in providing programs with focus and continuity, allowing for personal relationships to develop, and creating opportunities to rapidly ramp up programs when the political climate permits.
- **Trust-building:** This is a critical factor cited by almost everyone working with the DPRK (or any other international partner, for that matter). But it is tricky to apply this concept in the DPRK context, since it is not always clear where special requests are coming from. And some of the requests can be totally unrelated to the program under discussion. The point most frequently made by DPRK counterparts is that they trust partners who do what they agree to do. However, there have been cases where what is viewed as a "discussion of ideas" on the U.S. side is viewed as an "agreement" on the DPRK side. Thus, it is important that one not have general discussions of possible courses of action unless one's institution is ready to follow through if the DPRK side expresses interest. There should also be an institutional understanding of the line between donations/gifts for the sake of trust-building and for something

very different.

- **Multiple Programs:** It's as simple as "don't put all your eggs in one basket." Given the many things that can interrupt cooperation with a DPRK institution, it is good to have alternative programs—ideally with different counterparts—so that one might continue if another stalls.
- **Working with the Bureaucracy:** The DPRK has designated normal points of contact for outside organizations seeking program cooperation. For U.S. non-government entities this is KAPES, apparently a unit under the Ministry of Foreign Affairs. Based on experience, it appears that KAPES has its own interests and that these must be considered in working through them to reach counterpart institutions. Are there ways acceptable to the DPRK for reducing the number of bureaucratic layers in developing cooperative programs? Perhaps we can share experience on this topic.

### *Cautions*

- **Political Interruptions:** This is an obvious reality in working with the DPRK. It means that institutional leadership must be committed to engagement for the long haul. It probably means that the purpose of attempting educational cooperation with the DPRK must be viewed differently than the straightforward objectives that apply in most situations.
- **Silver Bullet Syndrome:** It appears that most North Koreans have been convinced that there is a specific, technical solution to most of their problems. Of course, they are operating in a system in which institutional, much less systemic, change is out of the question. A breakthrough in rice hybrid rice seed development (using the latest gene splicing technology) will solve the food crisis, rather than reducing local production to an ecologically sustainable level and importing food to close the gap (requiring a major systemic change to generate the necessary foreign exchange).
- **Short Time Horizon:** Everyone in the DPRK who works with external counterparts is under pressure to produce immediate and visible results. The problems are pressing, the superiors are demanding, and the consequences of failure are unpleasant. Some concrete benefits should be forthcoming in the short term in order that counterparts can stay engaged in a longer-term program.
- **One-Way Street:** In spite of talk about reciprocity in exchanges, DPRK counterparts are very limited in the access that they can offer to an external cooperating organization. They are not shy in pressing for

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wide access abroad to institutions and experts, but may be able to offer only another city tour and limited access to counterpart institutions and experts in their own country. In some cases, it has even been difficult to meet with participants in hosted exchanges when making follow-up visits to Pyongyang.

- **Gifts Demonstrate Sincerity:** Elaborating on the point above regarding trust-building, an external cooperating organization must be prepared to periodically provide some concrete evidence of its “sincerity.” The requested evidence may be entirely unrelated to the area of cooperation under discussion. The DPRK has a limited number of channels to the outside world, and whatever channels are available can be mobilized to meet an urgent need or request from leaders.
- **Publicity:** It is an understatement to say that the DPRK is publicity shy, except on its own terms. There have been cases where an external counterpart has trumpeted an agreement with a DPRK institution before the program has launched, and mysteriously the DPRK has pulled out. With the DPRK, “nothing happens until it happens,” and agreements are not programs. It is best to work quietly, with a sensitivity to the personal situation of counterparts. Talking with counterparts about timing and acceptable levels of publicity is advisable. It may be necessary to explain this to program donors.

## U.S.-DPRK Educational Exchanges: Some Considerations

The points made above can serve as general guidance to considering an exchange program with the DPRK. Here are some more specific points that program planners might consider:

- A U.S.-DPRK educational exchange will be embedded in the politics of U.S.-DPRK official relations. 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.
- Given the above point, the leadership of U.S. educational institutions should take a long-term perspective on programs with the DPRK. They should view such programs not only as being educational in nature but also as contributing to the gradual stabilization of U.S.-Korea relations. This kind of support by an institution’s senior leadership is critical.
- Likewise, financial supporters of such programs must be committed and flexible. Programs will not unfold according to precise timetables. There will be periods of little or no expenditures, followed by the necessity for large budgets for exchanges that might develop with limited advance

notice.

- The DPRK, consistent with its self-image as an important player in the world, tends to value engagement with universities that it considers prestigious. (These would probably be the same that South Korean parents value highly.) Partnerships between these institutions and those with less name recognition but strong programs would be desirable.
- U.S. NGOs and foundations that have existing relationships and are committed to long-term programs with the DPRK can partner with educational institutions as facilitators and advisors on the development and maintenance of institutional relationships. The TAF-Cornell partnership is one example. In spite of a considerable lull in exchanges, the two institutions have maintained a partnership that can be activated when the political environment permits.
- The DPRK understands that educational exchanges can take place only with the approval of the U.S. government. An institution's access to the U.S. government at a high level is probably an advantage in the calculation of the DPRK counterparts. Having former government officials on the faculty of a U.S. partner institution is also likely to be considered a plus by the DPRK.

## Notes

<sup>1</sup>The author is currently Korea Country Representative for The Asia Foundation. This paper represents the personal views and analysis of the author, and not necessarily that of The Asia Foundation.



# STUDY TOURS AND TRAINING PROGRAMS FOR DPRK SPECIALISTS

***Randall Ireson***

Since the beginning of humanitarian aid programs addressing the food emergency in the Democratic People's Republic of Korea (DPRK), most aid agencies have included a variety of study tours or technical exchanges in their programs. This chapter reviews the development and implementation of such programs, discusses the objectives of these programs, and identifies characteristics and features that contribute to the effectiveness and success of educational exchanges with the DPRK. The author was coordinator for the American Friends Service Committee (AFSC) agricultural assistance program in the DPRK between 1998 and 2007. This chapter draws from the AFSC experience<sup>1</sup> but is informed as well by information on exchanges carried out by other U.S. and European aid agencies. At the request of several program representatives, specific organizations and programs will not be identified in the examples discussed.

There have been many types of study programs involving DPRK participants. In this chapter the term "study tour" refers to relatively short-term (that is, month-long or shorter) programs that provide an overview of one or more subject areas. "Training program" refers to programs (typically longer) that are intended to provide the opportunity for more in-depth study and practical skill development in a topic area. "Study program" is the general term encompassing all possibilities. This chapter will focus on study programs outside the DPRK; however, in many cases these study programs are linked with other types of training in the DPRK, whether formal workshops or seminars, or hands-on practice and discussion at a farm, clinic, or other location. U.S. agencies have normally been quite limited in their ability to implement formal training in the DPRK. There have been a few one- to three-day workshops, and a very few notable instances where foreign experts have worked side by side with DPRK counterparts installing equipment such as wind-powered electrical generators, hospital operating rooms, or water and electrical systems. Such projects have included an explicit training component beyond just getting the equipment installed and working.



## Context

The early international response to the DPRK famine included both food donations and material and technical assistance to the farming and health sectors. NGOs and other agencies working in agriculture and health began to look for opportunities to bring North Korean counterparts to the United States, Europe, or elsewhere in order to introduce them to current practices and technology. DPRK participants in these programs were usually well-educated specialists, but typically two decades or more out of date in their fields, because of the country's isolation and lack of access to international publications and other information. Study tours organized to provide general information regarding farming methods, health or sanitation were an important step in improving communication and understanding between foreign assistance personnel and their DPRK counterparts. During the mid and late 1990s, substantial tensions and disagreements were common in aid programs, as international program directors attempted to acquire sufficient information about conditions in the DPRK to organize effective programs, and DPRK counterpart organizations insisted that they could implement the programs themselves, given the material resources. The gap in knowledge and technical perspective compounded already intense differences in political and policy perspectives.

DPRK specialists, whether in agriculture, public health, or medicine, actively pursue new knowledge and information. They are not uninformed about international developments in their field, but especially through the late 1990s had very spotty access to international publications. Thus, they might have read a single research report about earthworm farming, for example, but have no information about either the organizational and agricultural context in which earthworms are raised or any other research on earthworms that may question or amplify the findings that they have read. The example is trivial, but the overall process is not. Scientific knowledge must be understood within the context of a field, and the DPRK specialists did not have the contextual background to evaluate what they might be reading.

Thus, the objective of early study tours was almost always to provide broad-based introductions to a particular topic, whether corn breeding, tuberculosis diagnosis or municipal water supply. North Korean participants in these delegations tended to be mature specialists (scientists, doctors, technicians) who were trusted by their government and could interpret what they saw and relate it to the DPRK situation. This pattern continued for a number of years. The education process was slow given that it was an unusual NGO that was able to invite abroad even two groups of North Koreans per year. A typical program in the United States lasted for around two weeks and included three to five participants.

Over time, the content and objective of these programs evolved. As Koreans gained current information about their fields, and as international

staff learned more about the DPRK situation and began to focus the activities of their aid programs more tightly, the subject matter of study tours likewise became more focused. Rather than visiting dairy farms, pig breeders, and corn farms as part of a single study tour, for example, a study tour might concentrate only on pig nutrition and pig housing systems. Korean specialists were clearly doing a good job of sharing what they learned with their colleagues and superiors, as subsequent participants came with greater overall awareness of the particular field of study, as well as with specific questions or topics that they wanted to investigate in depth.

In the early 2000s, international assistance agencies (NGOs and others) began to transition from an emphasis on emergency material assistance (whether in the form of food, farming supplies, medicines, or equipment) to programs that addressed underlying problems such as poor soil health, unimproved seeds, a widespread inability to properly diagnose certain medical issues, or a lack of clean drinking water. DPRK counterparts continued to insist on high levels of material aid, but also began to recognize that up-to-date technical and scientific knowledge was vital to the national recovery effort. Knowledge sharing programs were therefore able to link training and study tours more closely to program activities in the DPRK.

### **From Study Tour to Training**

The key element in the evolution of education programs from study tours to practical training has been the gradual growth of a shared understanding of information needs. In the early years of assistance, U.S. and other international aid staff were trying to learn enough about the DPRK to provide appropriate aid as well as appropriate educational materials. These efforts were often scattershot at best, until a clear picture of the sector (be it agriculture, medicine or public health) emerged. DPRK aid coordination counterparts (typically in the Flood Damage Rehabilitation Committee—FDRC) and technical specialists had little information about the last ten or twenty years of technical development outside the DPRK, and assumed that their key needs were improved equipment or seed, and more fertilizer, rather than updated knowledge. This assumption was sharply challenged during the first few years of study tours, and by around 2001 DPRK study delegations were clearly looking for current scientific and technical information to upgrade planning and management efforts at home.

To understand the development of educational exchange programs with the DPRK, one must consider the motivations and objectives of the parties to the exchange. These objectives have not been constant over time, nor entirely shared. U.S. NGOs proposed and implemented study tours for a variety of reasons, including:

- To bring their counterparts up to date in their field, so that program

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activities can continue effectively.

- To reduce the isolation of the DPRK and introduce new ideas and experiences.
- To develop person-to-person contacts between Americans and North Koreans, that might serve as a foundation for greater reconciliation and understanding.
- To modernize DPRK institutions and practices in a particular field.
- To expose DPRK participants to Western institutions and information sharing networks.

The DPRK authorities have some similar and some different objectives:

- 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.

Figure 1 outlines the types of education exchanges ranging from familiarization study tours to university degree programs. Over time, exchanges with the DPRK have tended to evolve upward along this continuum, but with a separate path and rate of change for each international partner. Some aid agencies have not been able to progress past the level of a specialized study tour, while others (mostly from Europe) are now supporting extended practical study and training.

Figure 1 Typology of Exchange Programs

Outside DPRK		Partnership agreements developed	Inside DPRK	
<i>Examples</i>	<i>Type of program</i>		<i>Type of program</i>	<i>Examples</i>
Degree programs in Australia, Europe	University degree program		Faculty at DPRK universities	So far not generalized beyond language instruction
Specialized training at Chinese & European universities sponsored by Western NGOs	Formal non-degree university study		Faculty at DPRK universities	European faculty teaching language in Pyongyang
Specialized agriculture or economics training at European and Chinese universities	In-depth training programs		Teachers resident in DPRK—specialized programs	Specialized language programs: English, French, German
Fruit production training in Europe, cardiology training in U.S.	Practical training (>=4 weeks)		Project training > 1 week, or joint installation of equipment or facilities renovation	Installation of wind-electric generators, hospital equipment, medical laboratory
Many examples from 2000 onward in Europe, United States, Canada, Asia	Specialized study tour		One-off lecture or workshop	Visiting specialists in agriculture, medicine, etc by many agencies
Typical pattern in late 1990s, mostly superseded by specialized study tours	Familiarization study tour		Normal technical project visits	Ongoing from beginning

Source: author.

DPRK authorities were taking a calculated risk in allowing scientists, doctors and technical specialists to travel abroad, especially to the United States and Europe. Officials who had previously worked abroad presumably knew very well that the travelers would see that the rest of the world was not as backward and antagonistic as was depicted by DPRK media. Thus, the study delegations were required to bring back clear and *tangible* proof of the benefits of their excursion. The phrase “demonstrate the success of the delegation” implied that the delegation would return with technical books, scientific journals, samples of medicines or agriculture chemicals, seeds, and so on. In other words, they needed to return with tangible evidence to demonstrate to their superiors that the delegation had been able to reap

some bounty during its stay in hostile territory, and thus justify the delegates' exposure to unorthodox ideas and vouch for the benefit of future delegations.

As the knowledge base increased, and as both sides developed greater understanding of and appreciation for each other's objectives, educational programs became somewhat more focused and more closely integrated with aid program activities in the DPRK. For example, one NGO implemented three agriculture study delegations between 2004 and 2006 that concentrated on techniques of crop rotation, soil fertility management, and organic farming, in support of its sustainable farming program activities in the DPRK.

DPRK partners began to request longer and more focused study opportunities, sometimes before U.S. partners were able to consider these requests. At the same time, several U.S. universities that provided training and support to delegations invited by U.S. NGOs have expressed interest in inviting DPRK scientists for extended stays for either study or cooperative research. But DPRK authorities have so far been unwilling to allow extended stays in the United States, and it is also not clear that the U.S. Department of State would grant visas permitting more than a three-month stay. Study opportunities of less than a month can provide useful information, but seldom impart the hands-on experience needed for participants to develop useable skills or integrate knowledge in a practical way. Longer-term training is necessary to do more than develop awareness of new methods.

Whatever longer-term training and research has occurred has mostly been implemented outside the United States, particularly in China and other Asian countries, or by European aid organizations. For example, one NGO has supported DPRK rice breeders so as to give them the opportunity to work at a Vietnamese research center. The scientists have lived in Vietnam for as many as five months at a time, and the program has now been repeated for six years. The scientists have opportunities for independent research and discussions with their Vietnamese colleagues during these stays. At least one European agency has placed DPRK farm technicians in working European farms for up to a half year.

With these types of program changes, the objectives of DPRK participants have also evolved. Information and practical skills are more highly evaluated than during the early years. Copies of reports, scientific papers, technical bulletins, and the like are collected (now almost exclusively in electronic format) and brought home on CDs or thumb drives. This approach greatly facilitates the dissemination of technical knowledge in the DPRK, once the documents have been reviewed by security. Many are reportedly made available on the DPRK intranet. Program continuity is also improved. In some cases, a specialist from the DPRK may participate in more than one training program. This helps to form connections between disparate information sources, and contributes to the integration of the knowledge gained, though it necessarily reduces the number of DPRK specialists who acquire foreign

study experience. Study program participants may also share information gained in seminars with their colleagues after returning to the DPRK. The extent to which this happens is unclear, but it is evident that information is being passed from participants in one delegation to another.

Nonetheless, significant difficulties remain in imparting practical skills, whether technical or management, in short-term training programs. There are so many constraints and shortages in the DPRK that one cannot automatically expect that techniques learned (or even learned and practiced) during a study program can be replicated in the DPRK. Modern laboratory equipment or chemical reagents may be unavailable, crop planting requirements may impede the use of learned management methods, or spare parts to maintain equipment may be unavailable. As has been the case in all instances of international cooperation with the DPRK, it is very difficult to implement isolated changes when related institutions and support infrastructure are undeveloped or not functioning. A very few assistance agencies (both American and European) have begun to succeed in building close links between physical construction (such as hospital renovation or seed processing plants) and technical training of the personnel who will operate those systems. This sort of linkage seems to happen best when training programs or hands-on workshops are implemented in the DPRK, at or in conjunction with the construction of the new or improved facility.

More formal and long-term educational programs are uncommon, but do exist. In fact, *all* levels identified in Figure 1 have been accomplished by Western agencies working with the DPRK, though to date there are far fewer examples and fewer DPRK participants at the higher levels. U.S. organizations have been able to implement all levels outside the DPRK up to and including extended specialized training, but have not yet been able to place any residential instructors in the DPRK at any level.

## Keys to Success

Considering the many study programs that have been carried out by U.S. NGOs as well as other aid agencies working in the DPRK, we can identify a number of factors that contribute to meeting objectives of effective knowledge transfer, program support, and improved relationships between international and DPRK counterparts. To some extent, these factors are simply elements of good program management, but in work with the DPRK, some are either particularly problematic or critical for program success. These factors are identified and discussed below:

### *Participants*

Having the right personnel participate in a study program is absolutely critical, and happily has been somewhat easier in programs for the DPRK than in some other countries. Ideally, participants from the DPRK hold applied

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positions in their organization, are somewhat senior and mature enough to understand what they are learning, and, on returning home, write reports that are widely trusted. Senior party or agency heads generally do not benefit from technical education as much as lower-ranking specialists, but it is also important in some instances that the agency heads see technology or undergo training firsthand in order to assess and recognize its value and relevance and to support its adoption in the DPRK. DPRK authorities have generally not allowed junior technical staff to participate in programs organized by Western aid organizations. Yet younger specialists may benefit more from longer practical training programs where the objective is to impart working, hands-on skills and knowledge. To date, such programs are few in number, but may increase. Including field-level practitioners such as farm managers or hospital staff has in some cases been beneficial, with these participants gaining much from the experience. But a few agencies have reported experiences where the participants were relatively uneducated, unprepared for an international learning experience, and unable to benefit from the study tour. This is frustrating for all parties involved.

While it is mostly impossible for international aid agencies in the DPRK to identify or request specific participants for a study program, it has sometimes been possible to specify the characteristics or backgrounds of the participants and/or to specify the mix of technical specialties represented in a group. For example, one agriculture delegation included a soil scientist, an entomologist, and an agronomist, in order to consider multiple aspects of organic farming methods. For most U.S. NGOs, the identity of the individual participants has not been known until their visa applications were sent to the State Department, or to the other host country's embassy.

Virtually every study delegation from the DPRK includes one member from the relevant aid coordination agency, for example the FDRC, KAPES (Korean American Private Exchange Society), Ministry of Foreign Affairs, etc. This person is the functional equivalent of the guides that accompany visiting international staff in the DPRK, and in the best circumstances provides accurate translations for the delegation and act as an experienced intermediary between the delegation members (often traveling for the first time) and the host agency staff. Some U.S. agencies have been fortunate to work with specific Korean guides over a period of several years (for delegations both to and from the DPRK), with the guides developing both knowledge of technical terminology and a genuine interest in the subject matter of the assistance programs. In such situations, two-way information transfer is quite smooth. In contrast, if the Korean guide/translator is neither proficient in relevant technical vocabulary and concepts nor interested in the subject matter, the quality of the learning experience is substantially degraded. A few NGOs have complained about the guides/translators assigned to their projects and have been able to effect changes. Delegations composed *entirely*

of staff from aid coordination agencies are inappropriate for transferring practical knowledge to DPRK line ministries or other agencies, but may be necessary to lay the political groundwork necessary for the eventual approval of technical training programs.

### *Partners*

Most aid agencies hosting study programs do not have the in-house technical expertise to provide training in the relevant topics, and must rely on partners—such as universities, training centers, corporations, industry associations, hospitals, and so on. Selecting appropriate partners is crucial to the success of a training program. Universities, with their experience in international education, agricultural extension, and short courses, are often ideal partners, particularly if the university has an active and experienced international studies and cooperative research program. When organizing a study program outside the NGO's own country, partnering with a local NGO (which may not have programs in the DPRK) can be an effective way of making contacts and plans with training organizations in that country. Some companies are willing and able to provide hands-on instruction and practice to representatives of an organization that purchases their products (e.g., chickens for breeding or industrial equipment). To date, the DPRK has not taken much advantage of such commercial-based opportunities, but they should be recognized as a potential resource.

### *Planning*

The best study programs are built around specific information needs of the aid program in the DPRK, or around information or skill needs identified by DPRK partners. It is crucial to know in detail what the specific knowledge transfer goals are, and to plan how and by whom the information will be presented. Ideally this process occurs through close communication and planning between international and DPRK program staff, well in advance of the study delegation. However, communication between U.S. NGOs and their DPRK partners is frequently obstructed and limited by the DPRK channels, and so this ideal is often not accomplished. International program staff have often been forced to plan a program based on rather limited information from the DPRK.

Planning with the university or other training partner is also vital, to ensure that key subjects are addressed and that the program is appropriately oriented to the expected level of the DPRK participants. Depending on the background and experience of the training partner, it has sometimes been beneficial for aid staff to meet personally with the partners for advance planning.



### *Preparation*

Both the DPRK participants and the training partners need orientation and preparation for the program to be most effective. Where possible, DPRK participants should receive an orientation regarding international travel and living in the destination country, as well as regarding any organizational requirements of the program. At least one aid agency has been able to accomplish this on a regular basis. One must assume that the participants already have appropriate professional and technical preparation, as a criterion of their selection, although as noted in the section on participants, this has not always been the case. While some European aid agencies have been able to review and possibly reject proposed individual participants in advance, that has almost never been possible for U.S. NGOs.

Preparation of staff and resource personnel from the training partner hosting the delegation (university, farm bureau, hospital, etc.) is beneficial. Most people have no knowledge or understanding of the social and economic institutions of the DPRK, and how they affect day-to-day decisions in farms, clinics, etc. Clarifying, for example, that farmers can't just go out and buy more fertilizer for their fields, but must make do with whatever quantity was delivered at the start of the year, substantially changes the discussion of farm management decisions. Giving the host organization and the planned resource persons written briefing information in advance about the DPRK, the agency's program in the DPRK, the backgrounds of the DPRK participants, and the organizations from which they come, is also helpful in developing presentations that are more meaningful and relevant to the DPRK specialists.

### *Program Relevance*

There is a nearly unlimited number of topics or areas of training that could be implemented in work with DPRK partners, but the best use of resources is to focus on study and training programs that are directly related to an agency's ongoing program activities in the DPRK. If an NGO program concentrates on primary health care, for example, training in cardiac surgery does not contribute to the main program goals. Similarly, if an agriculture program centers on developing improved crop rotation systems, training in agronomy and crop interactions is more relevant than training in chicken nutrition. There certainly have been occasions when an aid agency has implemented a study program on topics that are not central to its mission, often as a necessary contribution to building a relationship with its DPRK partners, or because the topic was generally useful for the DPRK, though not central to the agency's mission. Sometimes requests are made by DPRK counterparts for high tech or cutting edge training, such as genetic engineering in plant breeding, intensive livestock production, or open-heart surgery. The agency receiving such a request must consider whether it is an appropriate use of limited aid resources when the DPRK is unable even to produce clean seed

for its farms or provide basic medicines in district clinics.

There have been times when DPRK national priorities—for example, to greatly increase potato production—have caused aid organizations to revise both their on-the-ground activities and their study and training programs. The benefits of such a redirection must be evaluated on a case by case basis.

### *Interpretation*

DPRK participants in study programs are often traveling away from home for the first time, and are confronted by strange and often not easily understood institutions, cultural practices, and information. Many are quite nervous at the prospect of traveling to countries that they have been told are threatening and antagonistic. Providing basic information as soon as the delegates arrive about the state and town where they are—about lodging, transportation, and meal provisions—and giving them a copy of a detailed program itinerary may go a long way in overcoming initial uneasiness and establishing an environment for cooperative learning.

We all make assumptions based on our home culture, and there are often information gaps between resource persons and North Korean specialists. An American farmer talking about his management decisions based on anticipated market price, profit margin, and bank loan costs makes no sense to a Korean farm manager who is not operating in a market environment. Pausing the discussion for a moment to explain to both sides the differences in systems and underlying assumptions can clarify many points and improve subsequent communication. This is an important responsibility of the accompanying aid agency staff, and potentially also of the DPRK guide/translator, who also has an opportunity to explain the priorities and viewpoints of the delegation and of the DPRK counterpart organization.

In addition, despite usually excellent translation, key points may get missed, and an attentive aid agency staff accompanying the delegation may notice the gap and fill in at an appropriate time. Sometimes it is also helpful to remind a group during a conversation that a similar or contrasting point was made in another meeting several days earlier. This contextualizing of the learning experience helps to cement and organize the information that the participants encounter, and aids in retention and understanding.

### *Internet*

As electronic data sources have proliferated, and as virtually all scientific publications are now available online, it is essential that study delegations have ample time to explore these resources. Participants should have access to university library computers that provide them with an unlimited ability to download journal articles, together with initial guidance and help in manipulating search engines to make their research efficient and effective. Blocks of time should be built into the program itinerary to allow participants

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to utilize this priceless resource.

### *Flexibility*

Nothing ever goes exactly as planned. An agency may plan a study program and learn when the delegation arrives that it has a rather different set of priorities, which had not been communicated through official channels. This is not common, but has occurred. More common is the delegation that brings additional requests for visits, study topics, or supplies that are reasonable and related to the core topic, but were not included in the initial plan. In such cases, a good relationship between the aid agency and its education partner(s) will facilitate modifying or augmenting the original plans. The host agency should also be prepared to take advantage of unexpected opportunities, such as a professional conference nearby, or a community presentation by an agriculture extension agent on topics of interest to the delegation. When plans are broken, make the best of things: one agriculture delegation had its final flight leg in the United States cancelled due to weather, with no assured onward transport for three days. The agency staff turned the 700 mile drive to the final destination into a moving introductory lesson on dryland farming, center pivot irrigation systems, beef cattle feed lots, and the U.S. trucking industry, all viewed through the car windows along the way.

### *Follow-up*

Study programs work best when what is learned is put into practice on return home. U.S. agencies have not always been able even to meet with study program participants after they return to the DPRK. The situation has generally improved over the years, but there are still occasions when participants simply disappear into the woodwork. But in the best cases, agency staff continue to work with the study program participants on project activities, sometimes over many years. Such continuity builds mutual trust and understanding, program coherence, and improved study programs downstream. Having participants in study programs abroad act as resource persons in follow-up workshops in the DPRK also cements learnings and interprets them in ways that are relevant and meaningful for the DPRK situation. At least one aid agency requires study program participants to keep a daily log and write a debriefing report once they have returned to the DPRK. At the very least, an agency staff should sit with the delegation just prior to the end of the program and discuss in detail their evaluation of each of the different program activities and what they have learned. This both provides vital feedback for future program development and demonstrates respect for the ideas and opinions of the participants.

Another important aspect of follow-up is building institutional relationships between DPRK organizations and international counterparts. For U.S. organizations, this has been quite difficult and relatively unsuccessful.

More than a few U.S. universities have offered either extended training programs or cooperative research opportunities as a preamble to more general cooperation, but to date only one of these invitations has been accepted. There is one general cooperation agreement in place between a DPRK research organization and an Asian research center (not in China) that was facilitated by a U.S. NGO, but nothing else that I know of.

### *Food and Fun*

Most DPRK participants in a study program are exceedingly mindful of the unusual opportunity they have, and of the very short time available in which to accomplish a long list of goals. They work hard and usually meet among themselves until late every night, discussing and reviewing each day's activities. Attending to their nutrition and mental rest contributes to their overall evaluation of the experience, as well as to their ability to learn. Arranging lodgings that are apartments, or hotel suites with a kitchenette, allows the delegation to cook Korean-style meals from time to time, and also creates an opportunity for the participants to explore grocery stores. In addition, the lounge space found in a typical suite becomes a place to sit, talk, and drink at the end of the day, with the agency staff guide joining with the Korean participants (and sharing in the cooking and KP duties). Many things can be discussed and learned during these more relaxed hours. When eating in restaurants, it is enjoyable to introduce the Korean participants to the variety of international cuisines available in the United States, as an informal part of the program. My experience suggests that Mexican, Italian, and Indian cuisines—all spicy and substantial—are greatly enjoyed, so long as there are also regular East Asian meals to keep some contact with the familiar. Regional cooking is also something to explore as another window on American culture.

Any study program of two weeks or longer needs at least one rest day a week, which could be accomplished by a Sunday drive to a nearby park or lake, attendance of a sports event, visit to a winery, or the like. While the Korean participants may say that they would rather work in the library or do Internet research, taking at least some time off will contribute to everyone's mental health.

### **Choice of Location**

Study programs can and have been implemented in many locations, often in the NGO's home country, and often elsewhere. There are benefits and drawbacks to both situations that should be considered in program planning. Carrying out the program in the United States (assuming a U.S. NGO as host) allows for the maximum opportunity to build personal contacts and interpersonal understanding between people from two countries that are political adversaries. This is a central objective for some NGOs, though not for all. However it is, if anything, counter to DPRK goals. It is also often

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easier to organize the details of a study program in one's own country, because professional contacts may already be in place, and there is a common language and culture of education. When unexpected requests are made, or when accidents occur, it is easier to respond and access appropriate resources within one's own culture than when working elsewhere.

Americans are also in some ways particularly open to informal contact with visitors. Home visits and shared meals in homes of university faculty, program supporters, and the like are frequent elements of study programs in the United States, but not so common elsewhere.

In some fields, the United States, Canada and Europe are seen as leaders and, by extension, as highly preferred venues for study. On the other hand, conditions in Asian countries may be closer to those in the DPRK, and technologies easier to adapt. Asian specialists (especially in China) understand the situation in the DPRK better than many non-Asian specialists do, and can relate to DPRK study participants rather well. However, programs have also encountered situations where fundamental technical information is not freely shared by Chinese hosts, because it is seen as sensitive or as enabling industrial competition.

Agency staff accompanying DPRK study delegations in Asia have noted that in some cases DPRK participants are strongly impressed by the differences in economic and social patterns they encounter, because they expected other Asian countries to be similar to the DPRK, whereas Europe and the Americas are obviously different. Such observations would suggest that delegations to Asia may have a greater impact on North Koreans' worldview than delegations to North America or Europe.

Finally, there are practical considerations: visas to China, Vietnam, Cambodia, and Laos are much easier to arrange than visas to the United States, Canada, or Europe. DPRK authorities are also more willing to allow delegations to travel to friendly socialist countries than to the West, and in some cases have put such strict time limitations on delegations to the United States that the learning opportunities are severely constrained. Travel expenses to and within the United States are greater than in China, though air tickets to Southeast Asia cost about as much as travel to the United States.

Overall, there is no compelling reason universally to prefer study programs in one country to those in another. Good programs can be implemented anywhere that there are good resource and teaching institutions, provided the host agency is capable of identifying those resources and developing good partnerships with them, as discussed earlier. The key is to recognize the strengths and weaknesses of a specific training location with respect to program objectives, and organize the program to take maximum advantage of the strengths and to counteract the weaknesses. Close discussion and vigorous negotiation with one's DPRK counterpart is essential to this process.

## Overview

This chapter has reviewed the experience of U.S. and other aid organizations in carrying out study programs with the DPRK. In general, the content and implementation of these programs has gradually improved over the last 15 years, and the programs have become more focused and oriented toward transferring applicable knowledge and skills, in contrast to the early approach of familiarization tours. Much more can be done, however, but the obstacles to more effective study programs come primarily from the DPRK authorities. Every year a plethora of offers and opportunities for study and training programs for DPRK participants are not accepted, and the proposed length of programs is cut. Most agencies organizing study programs are aware of and attentive to many of the factors of success that have been discussed. Hopefully identifying and listing them here will assist in future program development.

## Notes

<sup>1</sup> To date, the AFSC agriculture program has implemented seven study or research trips to the United States, two to Canada, ten to China and six to Vietnam, with durations ranging from a week to five months. The general cooperation program has implemented one medical study tour in the United States, as well as eight training programs in China, addressing topics such as library science and management.





# COMPARATIVE CONTEXTS





# THE STANFORD NORTH KOREAN TUBERCULOSIS PROJECT<sup>1</sup>

**Sharon Perry**

Building professional exchange with North Korea focused on mutual interests in control of tuberculosis (TB) has potential to address a growing health crisis for Northeast Asia, while also opening new perspectives in cooperative health policy to enhance prospects for peace in the region. This chapter describes ongoing efforts of Stanford's DPRK Tuberculosis Project to develop research collaborations with the North Korean Ministry of Public Health (MOPH) centered on building cooperation for prevention and control of drug-resistant TB.

## **Background**

### ***1) Tuberculosis and Health***

*M. tuberculosis* (Mtb), the cause of human TB, infects over one third of the world's population, causing nine million cases and three million deaths each year, primarily in the developing world.<sup>2</sup> Despite these grim statistics, the normal human immune system is substantially equipped to fight a TB infection.<sup>3</sup> Of those exposed to an infectious TB case, only 30% are thought to develop the state of latent infection, during which the host remains healthy, but TB bacilli may survive for decades within clusters of immune cells. However, in 10% of these latently infected persons the latent state is terminated by the development of active disease characterized by a fatal outcome and dissemination of the TB bacillus to ten to twenty other persons. Risk factors associated with progression to the active form of the disease include malnutrition and other conditions that compromise the immune system.

Although antibiotics have greatly improved the treatment of active TB, current therapy requires the combined use of four different antibiotics administered in an uninterrupted matter for at least six months. The use of fewer drugs, interruption of drug therapy, infection with drug-resistant strains, and inadequate nutrition can result in treatment failure. In turn, treatment

failure results in a poor clinical outcome (including death) in the generation of drug-resistant strains and in the dissemination of these strains to other persons. If inadequately treated persons migrate or cross national borders, then the regional spread of these strains can be expected to occur.

### *2) Tuberculosis and the Emergence of Drug-resistant Strains*

The discovery of curative drugs in the middle of the 20th century, including their application to massive global public health campaigns, came at a critical time in the political realignment of the postwar world and the emergence of modern global markets. These developments have fundamentally altered the course of TB epidemics, particularly in the West.

By the late 20th century, however—within the short span of one human generation—two developments began to threaten these gains.<sup>4</sup> The first was the emergence of the AIDS epidemic, a disease that attacks the same immune cells required to control a TB infection. The second was the emergence of new drug-resistant strains of TB.<sup>5</sup> Multi-drug-resistant strains, which have proven 20–50 times more costly to treat with cure rates only marginally better than in the pre-drug era, now account for more than a half million TB cases each year.<sup>6,7</sup> An important epicenter of the global drug resistance epidemic is in states of the former Soviet Union, where as many as one in ten TB patients are multi-drug-resistant.<sup>8</sup> Resistant strains from this epicenter have now been tracked by molecular fingerprinting methods into Western Europe, the Middle East, and even South Africa. This experience shows that drug-resistant strains of TB, generated in one region as a consequence of failed public health programs, can disseminate to spawn outbreaks of drug-resistant disease both regionally and remotely.

For much of the 20th century, TB care in the former Soviet Union advanced in line with the West. Drug-resistant strains may have emerged during the period of economic destabilization that accompanied collapse of the Soviet bloc in the 1980s.<sup>9,10</sup> Thus, both the TB epidemic associated with AIDS in Africa and the emerging epidemic of multi-drug-resistant strains in the former Soviet Union have found their niche in vulnerable states with radically different social and economic development agendas than the developed Western economies.

### *3) Origins of the North Korean Tuberculosis Epidemic*

During the 1960s, North Korea implemented a universal health care program (Article 72 of the Constitution), and the “#3 TB Department” of the MOPH built a multi-tiered residential treatment system for TB. This system, which includes approximately 225 remotely located 60–70 bed tuberculosis “rest homes” in each of the country’s counties and municipal districts, established a WHO-sponsored “directly observed therapy” short course (DOTS) program in 2001. The country relies almost entirely on external assistance for essential

TB drugs and diagnostic supplies. Since 2002, more than 90% of this support has come through WHO-sponsored commodities programs. In June 2010 the country was approved for two years of support from the Global Fund against AIDS, Tuberculosis and Malaria. The country is ineligible for health sector development support, such as from the World Bank, IMF, or Asian Development Bank.

Health indicators provided by the MOPH for 1994, the period just before the great famines, depict a TB incidence rate of about 38/100,000 population. These estimates are likely inaccurate; however, in 2002, estimated incidence had risen to 220/100,000.<sup>11</sup> For 2010, North Korea is expected to report nearly 100,000 new TB cases, for a rate of 345/100,000 population,<sup>12</sup> one of the highest in the world outside of sub-Saharan Africa. Chronic food shortages as well as inadequate drug supplies have continued to fan the epidemic.

#### *4) Implications for Northeast Asia*

TB departments throughout much of Northeast Asia were isolated from the West during a critical period of advancement in laboratory technologies and outpatient drug management. More than 100,000 cases of drug resistance, over one-fifth of the global incidence, are thought to emerge in China each year. In two Chinese provinces bordering North Korea (Liaoning and Heilongjiang), sentinel laboratory studies have reported that as many as 10% of new TB patients and 35% of previously treated TB patients harbor multi-drug-resistant TB strains.<sup>13</sup> These rates are two to three times higher than corresponding global averages. The DPRK TB epidemic has significant repercussions for the epidemiologically fragile communities of Northeast Asia.

### **The Stanford DPRK Tuberculosis Project**

Stanford's DPRK Tuberculosis Project began in 2007 as a unique undertaking of Asian policy specialists from Stanford's Freeman Spogli Institute (FSI) and medical faculty from the School of Medicine (SOM). In January 2008, with sponsorship from the Center for International Security and Cooperation (CISAC, Lewis) and the Walter H. Shorenstein Asia-Pacific Research Center (APARC, Shin), Stanford School of Medicine organized the Bay Area TB Consortium (BATC) to host five MOPH health officials for a week-long visit to Stanford for joint discussions with Bay Area TB experts and officials of the U.S. CDC and the WHO. Out of these discussions emerged Stanford's DPRK Tuberculosis Project which seeks to develop professional engagement opportunities with North Korea focused on mutual interests in tuberculosis control.

With funds raised through the Global Health & Security Initiative of the Nuclear Threat Initiative, the Project purchased a WHO-recommended inventory of TB laboratory equipment and supplies and formed a partnership with the U.S. NGO, Christian Friends of Korea (CFK) to assist with in-country

logistics, export licensing, and physical infrastructure requirements. Since the spring of 2009, joint Stanford-CFK teams have completed six trips to Pyongyang and made a combined contribution of over \$500,000 to remodel and equip a 13-room, 2500+ square foot space at the #3 TB Hospital for reference-level quality assurance, TB culture and drug susceptibility testing services. Over 30 different MOPH personnel worked in tandem with U.S. 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.

The project also developed important networks with officials in Washington, Beijing, New Delhi and Pyongyang to raise awareness of the North Korean TB epidemic. These efforts were instrumental in triggering resumption of negotiations for a Global Fund award to North Korea and in convening U.S. government and world health officials for a face-to-face meeting regarding long-term funding needs of the DPRK TB control program.

On October 18, 2010, DPRK's first national TB reference laboratory was formally opened in a ceremony attended by representatives of the Stanford BATC, CFK, the Ministry of Public Health, the WHO, and the new Global Fund agent for DPRK, UNICEF. The new laboratory was reviewed and commended by WHO Director General Dr. Margaret Chan during her first visit to North Korea in April 2010. The project has been covered by several publications, including articles in *Science*, *The Lancet*, and *The British Medical Journal*.

## Opportunities

We have established a new and viable partnership with the DPRK Ministry of Public Health to work on mutual interests in TB control. The collaboration with CFK has also vetted several contingencies necessary for launching an initiative of this type in North Korea. These include the integration of humanitarian and scientific expertise, as well as coordination with export compliance authorities and world health officials. Within DPRK, the project has high credibility for its momentum, follow-through and multiple capabilities. The process of implementing this project has created a highly successful model of cooperative effort with potential to expand professional engagement opportunities with North Korea focused on mutual health security interests.

To prepare for its role in national TB control, the new reference laboratory must undergo international inspections and participate in field trials designed to assure the reliability and quality of laboratory results. Ultimately, the plan is to develop capacity to test several thousand specimens per year by culture, with drug susceptibility testing (DST) on selected cultures. The laboratory is also expected to develop capacity to provide surveillance for the national TB control program, to determine prevalence of drug resistance in North Korea,

and to guide treatment in patients suspected of having drug resistance. We believe these goals are feasible over the next two to three years, particularly if MOPH is able to continue its professional collaborations with projects such as ours and develop affiliations with international reference laboratories. The high education level in DPRK, and the competencies observed by the BATC training team also suggest that MOPH possesses human resources to make a successful “generation leap” in TB laboratory technology. Toward this end, the project has defined the following near-term objectives:

1. Support establishment of external technical assistance and quality assurance affiliations for the new laboratory.
2. Develop academic exchange opportunities, enabling DPRK Ministry of Public Health officials to study at Stanford and for MOPH to receive Stanford researchers in DPRK.

### **Tuberculosis Engagement as a Model for Educational Exchange**

Educational exchange focused on common interests in controlling drug-resistant TB offers several potential advantages. First, as illustrated by the Soviet MDR experience, drug resistance is exacerbated by isolation and economic destabilization, and these epidemics leave costly legacies behind. Second, prevention of MDR-TB requires coordinated international approaches, including technological infrastructure for resource-limited settings. Third, tuberculosis programs are supported by an established international medical and academic fraternity that is remarkably coherent in its professional standards and practices. Through the World STOP TB partnership, the U.S. CDC, and the International Union against Tuberculosis and Lung Disease, this professional community was one of the first to exploit modern communication networks to build training, consultancy, and quality assessment resources. Linking North Korean public health officials to this vital pedagogic community could help spur broader assimilation with the international health community.

### **Notes**

<sup>1</sup> The paper from which this chapter is drawn has been previously published in two formats. See Sharon Perry, Heidi Linton, and Gary Schoolnik, “Tuberculosis in North Korea,” *Science* 331 (21 January 2011): 263; and Sharon Perry, Louise Gresham, Heidi Linton, and Gary Schoolnik, “Engaging North Korea on Mutual Interests in Tuberculosis Control,” *KEI Academic Paper Series* 6, no. 2 (February 2011): 1–12.

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<sup>11</sup> World Health Organization, *WHO Country Cooperation Strategy, 2004-2008: Democratic People’s Republic of North Korea*. (Geneva: World Health Organization, Pyongyang Office, 2003).

<sup>12</sup> World Health Organization, *DPRK Country Profile* (2009).

<sup>13</sup> G. X. He, Y. L. Zhao, G. L. Jiang, Y. H. Liu, H. Xia, et al., “Prevalence of tuberculosis drug resistance in 10 provinces of China,” *BMC Infectious Diseases* 8 (2008): 166.

# EDUCATIONAL EXCHANGES WITH THE DPRK: THE BRITISH (AND OTHER) EXPERIENCES<sup>1</sup>

*John Everard*

**T**he UK has for a decade run a project providing English language teacher trainers in Pyongyang, which has been a great success and has been expanded. The UK has also run some other exchanges, though not at the level of other European countries.

If it is decided to expand U.S.-DPRK academic exchanges, there may be an advantage in doing so in a more structured way than has hitherto been the case, to ensure that subjects of interest to the United States, and not just those of interest to the DPRK, are included.

## **What Has Been Done**

Perhaps the most important educational exchange that the UK runs with the DPRK is the provision of English language teacher training (ELT). But the UK also occasionally arranges for small numbers of North Koreans to study in the UK and has from time to time attempted other exchanges.

### *English language teaching and training*

Following a mission to Pyongyang in 1997 by the UK Foreign and Commonwealth Office (FCO) and subsequent ELT assessment visits, the UK decided to fund two ELT specialists in Pyongyang for an academic year. This arrangement was formalized during a visit to Pyongyang by the head of the FCO's Far East and Pacific Department in May 2000. The two teacher trainers arrived in September 2000 (so even before the UK and DPRK established diplomatic relations in December 2000) and were assigned to Kim Il-sung University and to Pyongyang University for Foreign Studies (PUFS). The project was funded by the FCO and administered by the British Council from Beijing.

After the establishment of diplomatic relations and the establishment of the British embassy in Pyongyang (May 2001), further funding became available and the program was expanded to three teacher trainers from September 2001, with the third teacher trainer assigned to Kim Hyong Jik University. Although it might have been possible to shift the administration



of this program from the British Council in Beijing to the British embassy in Pyongyang once this latter was established in 2002, it was decided not to change the existing arrangements. This was both because the British Council was able to bring to bear expertise in teacher training techniques and professional support for the trainers that would have been beyond the embassy's reach and because the existing arrangement took an administrative burden off a busy embassy. But the embassy provided moral and other support on the ground, and the teacher trainers continued to meet the ambassador once a month.

The DPRK response to the trainers was enthusiastic. They were warmly welcomed, and DPRK officials tried hard to make their lives comfortable. But there were considerable practical problems. Their accommodations were poor, and the embassy had to fight to prevent the DPRK from housing one of them in an isolated guesthouse. The teachers suffered the same problems over travel within the DPRK as other foreigners. Classroom conditions were often challenging. There was rarely (if ever) heating in winter or electricity, so that trainers taught classes in outdoor clothes and wrote on blackboards with numb fingers (whenever chalk was available). Their ability to interact socially with the teachers and pupils of the institutions where they worked was circumscribed.

Over time other problems emerged. Once the DPRK officials discovered that the British trainers had access to a materials budget (intended to ensure that they were able to provide basic educational materials for their classes) the latter came under pressure to help the institutions with their own chronic equipment failures. There were, for example, repeated requests for a new photocopier for one of the institutions.

At first the security agencies watched the program closely but to some extent this has now been relaxed. In the early years of the project unexplained officials would often (but not always) sit in the back of classes taking notes on what was being taught. This, however, happens much less frequently now. Observers are invited into ELT classes—but these are teachers from the university. Although trainers are aware that observers are listening to what is being said, any follow-up is now a point of positive and formative discussion. Teaching materials too were closely vetted, but this too has been relaxed to some extent. During the 2008–2009 academic year, the PUFS trainer was presented with a text taken from an encyclopedia on international law. After the teacher had written supplementary activities this was piloted in a class that included three hours of discussion on human rights. In Kim Hyong Jik University a pilot project using internationally published materials is now underway, and although there has been some censorship, most of it has been of a “cultural” rather than political nature.

There was, and still is, constant rivalry between the three institutions; when a trainer had to leave early or the British Council was unable to recruit

a full complement of trainers in time (another recurrent problem), discussions on which institution should do without a prized and prestige-bringing foreign expert were often delicate. Within faculties it was often unclear who had the final decision, which meant that the trainers were sometimes unsure what they were or were not allowed to do.

In late 2008 it was decided to expand the program further, to restructure it so as to reinforce its focus on teacher training, and to broaden it to include curriculum development. At the same time, in order to tackle the problems of rivalries within faculties, the British Council insisted on the appointment of a formal liaison official within each of the three institutions for the trainers. There are now four ELT teacher training experts in Pyongyang—one coordinator/in-country project manager/senior teacher trainer and three trainers—and the project runs as a partnership between the FCO and the British Council with shared funding, while working to ensure that it is recognized as separate from any other activity that the embassy undertakes. Also, in recent years the amount of direct control by participating universities over the trainers has been much reduced. This has had the effect of reducing the amount of direct teaching asked of the trainers, and so of bringing the main project objective of teacher training back to the forefront. Day-to-day management is now being moved from the British Council in Beijing to Pyongyang to give more local autonomy to the new in-country project manager. This has led to a more efficient system of budgeting and offers far greater pastoral support to the other trainers in country.

From time to time it has been possible to expand the program to take in one-off “road show” events in universities outside Pyongyang, although fewer of these have taken place recently. But these call for considerable preparation—although the provincial universities are almost always keen on them the central authorities in Pyongyang allow them only grudgingly. Even brief visits to provincial educational institutions have a great impact. When the UK ambassador visited a school in Sinuiju in 2008, he found the staff were still talking about a visit by his predecessor in 2004.

### *Study by North Koreans in the UK*

From the outset the UK attempted to bring North Koreans to study in Britain. But these efforts were complicated not only by DPRK political conservatism but also by the shortage of North Koreans whose knowledge of English was strong enough to allow them to follow courses. In autumn 2001 the UK offered to take six to nine agricultural students but none passed the English language tests. The following year the DPRK was offered two scholarships but only one of the two MFA candidates passed the English language exam, and the North Koreans would not let the other one go alone. However, two DPRK officials (one of whom now works in the European Department of the DPRK MFA) attended a human rights course at the University of Essex, and

three people spent a month at the Royal United Services Institute (RUSI); one wrote a paper that appeared in the *RUSI Journal*—Ri Tong Il, “Reunification of Korea and Security in Northeast Asia,” *RUSI Journal* 147, no 1 (2002).

At present, the ELT project provides funds and the opportunity for English language study in the UK by a small number of North Korean teachers and faculty or Ministry of Education (MoE) officials. Within the project this offer has been taken up to varying degrees with only one group visiting the UK during the last three years; however, the project continues to discuss the opportunity with the MoE. The DPRK universities have in the past asked for this provision to be increased but this has not been possible for financial reasons.

Separately from the project, the British embassy in Pyongyang also offers the chance for a small number of officials to study English in the UK. This is organized by the embassy (rather than the ELT project) usually with the MFA.

### *Other programs*

Some two hundred books on international law were given to the MFA after the two people had been to Essex. Some of these were certainly used since MFA officials have mentioned them to UK officials—they were particularly interested in those materials that related to the United States. The British embassy has also supplied a variety of newspapers and magazines to the MFA, the Ministry of Foreign Trade, the Friendship Association, the Grand People’s Study House, and the Ministry of Health. At the beginning there was very positive feedback about some of the material, including the newspapers, *The Economist*, and *The British Medical Journal*. But this feedback tailed off over time, and it seemed that access to this material was being limited as international tensions increased.

From time to time the UK attempts other forms of engagement in the field of education. When the British embassy was first set up it donated a range of books to the Great People’s Study House on Kim Il-sung Square in Pyongyang, but found during subsequent visits that these were untouched. Perhaps they were only put on display during embassy visits and not made accessible to ordinary Koreans.

### *Non-UK programs*

Other European countries run more extensive exchange programs with the DPRK than does the UK. There are a small number of DPRK students in France, while Poland has hosted North Korean students since 1954. Every year the Czech Republic offers the DPRK two to five long-term scholarships (four to six years) and four short-term scholarships (five weeks), and periodically invites seven to ten North Korean experts to seminars on economic issues. This means that at any one time there are usually about 25 North Korean students in the Czech Republic, and around 2,000 North Koreans have studied there

or in the old Czechoslovakia since 1948. Many North Koreans studied in the German Democratic Republic before 1990, and there are still Koreans who speak good German in middling and senior positions of the administration (e.g., Choe Thae Bok, Chairman of the Supreme People's Assembly). From time to time the German Embassy in Pyongyang is able to arrange reunions of some of these people. In recent years, several dozen North Korean graduates have visited Germany for study and research, some on a long-term basis. The 12 scholarship positions offered each year have not always been filled by North Koreans. But since the establishment of diplomatic relations between Germany and North Korea in 2001 some 50 medical doctors have been to Germany for postdoctoral training. The Swedes too pay for varying numbers of DPRK students to study in Sweden.

There are programs in the other direction, too. There are upwards of a dozen foreign students at Kim Il-sung University (mostly Chinese, with a leavening of Vietnamese, Kazakhs and sometimes Russians) all learning Korean over the course of four years. They have said that their classes are strict, with an emphasis on rote learning, but that within its own tradition the quality of teaching was good. They are, however, kept away from Korean students, with whom they have almost no interaction. The possibility of sending UK students to Kim Il-sung University was not explored (the problems of morale in such an environment for such a period would have been difficult to deal with), but it might well be possible for students from Western countries with relations with the DPRK to attend Kim Il-sung University (for an appropriate fee). Although there do not now seem to be any foreign students at other DPRK educational institutions, before 1991 there were foreign students who studied subjects other than Korean (including medicine and agriculture) and who studied outside Pyongyang. There were, for example, foreign students in Hamhung; they said that they did not enjoy the experience.

Language teachers and trainers from countries other than the UK work in Pyongyang. The Italians maintain an Italian teacher at PUFs, and the French a French teacher who works both in Kim Il-sung University and in PUFs. Germany has since 2002 maintained an academic lecturer from the German Academic Exchange Service (DAAD) working at Kim Il-sung University's department of German studies (approximately 15–20 students). German is also taught at PUFs. Until 2006 the Mennonites maintained two Canadian English language teachers in the Great People's Study Hall, and at present Trinity Western University (TWU) of British Columbia, Canada, maintains half a dozen teachers in Pyongyang and sometimes hosts DPRK students in Canada. TWU is a faith-based institution with links to ELIC in the U.S.

Germany has also taken a high-profile role in the biannual Pyongyang Film Festival. In 2006 it showed *Downfall*, depicting the last days of Hitler. Koreans came in large numbers to watch this portrayal of a crazed dictator barking incomprehensible orders from his bunker as his country fell apart

around him. Another film about opposition against Nazism, *Napola*, won the Grand Prize; a third one about the student resistance organization “The White Rose” was equally praised by the jury.

### What Worked and What Didn’t

Educational exchanges are an effective means of breaking down the barriers by which the people of the DPRK are surrounded. Equipping Koreans with a knowledge of English, and so with a skill through which they can access different kinds of writing, is an effective way of getting new ideas into the DPRK.

In general, the ELT teacher training program has been a great success, and it is hoped to extend it to schools in Pyongyang and perhaps to institutions outside the capital. It has earned great goodwill among North Koreans and has contributed significantly to the DPRK’s interaction with the outside world. In the closed world of the DPRK, simply having people listen to and look at a foreigner every day, and note that he or she is a human being like them, is an achievement. The expansion of the program into curriculum and materials development, language testing and assessment systems, British culture and English for Business, and more recently discussion of learner autonomy and self-access centers offers a chance to contribute to DPRK education in a more direct way. In its early stages the program also allowed some direct access to senior levels of DPRK universities—so to people with some access to senior levels of the national leadership. But it was rarely possible to conduct a conversation with such people that went beyond the practicalities of the program, and contacts at that level have become much more difficult in recent years.

The UK study program too works well. There is a group of alumni (to whom the embassy has reasonable but not automatic access) and the students seem to enjoy their experience of the UK. The DPRK students work hard and generally get good reports from their tutors. The only problem to arise was with one student who insisted on stuffing his homestay hosts’ fridge with kimchi.

Although donations of books and other reading material achieved some initial success, it seems that the DPRK authorities now make sure that nobody reads them. The Germans appear to have had the same experience with their Goetheinstitut reading room, which they opened in June 2004 but closed in November 2009. A library of teaching resources was donated by the Canadians to PUFs and Kim Il-sung University. Although students probably do not have access to these materials, they are often used by teachers. Moreover, some of the materials have made their way into “locally” produced materials and so are at least being used in classes.

## What Areas Should We Focus On?

It is important to work with the grain in North Korea. Trying to develop areas of exchange in which the North Koreans are not really interested or, worse, uncomfortable with, is highly resource intensive and unrewarding. The United States would be well placed to capitalize on the DPRK's hunger for English language teaching, and for technical education, if the political climate allows this. It might well be possible too to invite DPRK students to study at U.S. institutions. If this can be arranged, it is unlikely that they would be allowed by their authorities to study anything except English language and technical subjects, and the DPRK would insist that they study in groups and that DPRK officials have regular access to them.

## What Strategies?

At present, U.S. academic exchanges with the DPRK are very modest compared to those of many other countries. It does not appear that this is the result of a conscious decision—more that this is just how things have turned out given the overall lack of contacts between the United States and the DPRK.

If the United States decides at some point on a large-scale expansion of academic exchanges with the DPRK (this would, of course, depend on political developments), it might be worth considering structuring this through a comprehensive agreement with the DPRK. Such an agreement might offer the advantage of ensuring that the exchanges take in not just areas of interest to the DPRK (usually technical subjects) but also areas in which the United States would like to see exchanges. At present it seems that almost all academic exchanges between the United States and the DPRK were initiated by the DPRK, which has therefore been able to pick the subjects covered. It is likely too that the process of administering such an agreement would generate comprehensive details of exchanges, providing an overview of what is happening. It seems that as things stand few U.S. academic institutions know what exchanges their sister institutions elsewhere in the United States are pursuing.

There is probably also scope for developing exchanges through non-governmental and faith-based bodies. Both James Kim's Pyongyang University of Science and Technology (PUST) and Pyongyang Business School (an initiative launched with Swiss backing by Felix Abt, a Swiss businessman who has now left Pyongyang but who ran a pharmaceutical company there until 2009) are examples of what can be done.

## Notes

<sup>1</sup> Any views in this paper are purely those of the author and not necessarily those of the British government.





# MOVING FORWARD





THE VALUE OF APPLES IN  
HUMANITARIAN PROGRAMMING:  
LESSONS FROM MERCY CORPS' EDUCATIONAL  
EXCHANGES IN NORTH KOREA

**David Austin**

Invariably, when visiting North Korea the typical foreigner is instantly struck by the differences encountered in the cultural and political lives of North Koreans. There are photos of Kim Il-sung and Kim Jong-il hanging in all the buildings and neatly pinned to everyone's lapel; there are few cars, wide streets, and the list goes on. Observations between visitors are often discussed in hushed voices so as not to draw unnecessary attention from the North Korean minders and to avoid any possible awkward conversation. Most first-time visitors sneak in a few comments with their national colleagues in the restroom at the Koryo Hotel, or while walking up the steps near the Juche Tower. One cannot help but be struck by the unified national spirit presented in lockstep with the eternal president, Comrade Kim Il-sung.

This was not necessarily the case when I accompanied a group of agricultural scientists to North Korea. Although they could not help but recognize the political distinctions during our first few hours in Pyongyang, they were far more fascinated by the unseasonable absence of leaves on the trees as we drove from the airport to our guest house and by the subsequent huge numbers of butterflies we could see flitting about the fields—things that I could see but had not noticed. From what could be observed, I was told, this may be a two-generation summer for the destructive peach fruit moth, *Carposina niponensis*!

I quickly realized that I had entered a new world on this most recent trip to North Korea, a world overpopulated with coddling moths, American white butterflies, and leaf miners. I had traveled to North Korea many times before, but had never seen it through this point of view. I was traveling with an entomologist and two horticulture experts whose perspectives and observations were freshly different from my own.

In my previous travels to the Democratic People's Republic of Korea (DPRK), I was always keenly aware of the most recent political changes taking place in Pyongyang, Seoul, and Washington. Every time that I flew into the country, those seemingly ever-present tensions loomed large in governing my

speech and writings in every meeting and encounter. However, I had never noticed the bugs that, on this trip, kept popping up in the conversation or spontaneously grabbing my colleagues' attention during our field meetings. This was something new.

As a guest in North Korea, I know that I bear a certain responsibility as I travel there to “not screw up” (as my older sisters would all tell me); otherwise I could put in jeopardy the programs that my agency has so carefully nurtured and developed after years of trust-building with our Korean counterparts at the Korean American Private Exchange Society (KAPES). As a newcomer to the North Korea portfolio, I am very aware that Mercy Corps' programming in North Korea is a unique opportunity for our organization to play an important role as a humanitarian bridge between two countries that are technically still at war. I try to carefully consider all that happens around me—or at least until this trip I had thought that I was paying attention to what was happening all around me—until I realized that I had no idea what was happening in the insect and plant kingdoms, two kingdoms that affect the lives of people as much as, if not more than, their political environments.

During this most recent tour with three professors from Oregon State University (OSU), instead of discussing politics or the military in North Korea, we explored the mating habits of coddling moths, weather patterns, blossom times, and soil pH with our North Korean colleagues. Our conversations focused on a common desire to help increase the fruit production of some of the country's collective apple farms. This platform of common understanding in the horticultural communities transcended our national cultures and brought us together into a single scientific one.

From these fruitful conversations and productive field visits, I gained a deeper understanding of the role that university and educational exchanges can play in creating broader opportunities for mutual understanding between the vastly different societies of our two countries. Three years ago these same Oregon State University professors—Anita Azarenko, Helmut Riedl, and Steve Castagnoli—helped host a North Korean delegation to Oregon that Mercy Corps arranged with the farm managers of Kwaill County and KAPES. Dr. Azarenko taught the delegation in her classrooms at the university in Corvallis and, perhaps more importantly, on her private organic apple farm in rural Lane County. The Koreans learned organic farming principals and integrated pest management and then were given pruning hooks and shears to learn practical pruning techniques. After their afternoon on the farm, the Koreans' most pressing question was “How much money do the apples sell for?”

Now it was time for the American professors to see their former students in the context of their own working farms, and so Mercy Corps arranged the visit of the OSU team in order to establish a stronger understanding of how our involvement might lead to improved fruit production.

The consistency of relationships that Mercy Corps has been able to build through our apple programs, as well as in our donor base, provides a healthy measure of understanding as we seek both transparency and efficacy in our programming. By keeping the same people involved in the relationships, we have been able to forge stronger ties as we have more interaction—both in regards to difficulties and successes—in the development, execution, and follow-up of our programming.

Cultural, academic, and scientific exchanges provide an added layer of professionalism in our engagement with the North Koreans that benefits our overall relationships. Because we bring quality professionals, we demonstrate a level of commitment that speaks well to the North Koreans of our intentions to be helpful, which in turn deepens our relationships. When one recalls from our political theory classes that politics begins and ends with relationships, it is encouraging to know that we can build relationships of understanding through such cultural and scientific exchanges.

Thus, universities in particular are a tremendous catalyst for these kinds of exchanges. The American academic community—and in our case, land-grant universities—provide a tremendous resource for positive engagement with their niche-specific counterparts in North Korea who similarly study non-political sciences. These exchanges and relationships offer an alternative view to the one received by the general public through traditional media.

Typically, the news we hear from North Korea is political in nature: news about Kim Jong-il's health, the sinking of the *Cheonan*, Kim Jong-un and the succession of North Korean leadership. Global media analyze the political situation in North Korea up and down, contributing still further to the lack of understanding on both sides. However, these countless news stories have not necessarily engendered any positive steps toward easing tensions with the North Koreans, nor have they compelled us to think much differently about the stagnant situation on the Korean Peninsula.

Politics is rather myopic in that way. Like Hollywood, our political systems have a hyped-up notion of their own importance and demand the focus of our attention. Thus, the big differences are emphasized, while the smaller opportunities for success are met with little or no attention. Most of us engaged with North Korea have to gauge our steps in light of that demanding political perspective as we must operate in the political realities of the situation. Unfortunately, that glaring light too often limits our vision of what can be done, and the more promising opportunities for change are overcome by a powerful historical shadow.

That is why it is refreshing to travel with people whose lives are not dominated by politics, but rather by the more neutral sciences of horticulture, entomology, medicine, etc. These sciences are tremendously important for the long term, as their contributions can transform whole agricultural communities. It was an agricultural scientist, Norman Borlaug, who sparked

the Green Revolution in South Asia and saved tens, if not hundreds, of millions of lives over the past forty years. Similarly, but in a smaller context, Mercy Corps hopes that our humanitarian work in North Korean agriculture can benefit the food security of the people and eventually contribute to an increase in their overall standard of living.

By traveling with people who are more concerned about insects and the leaf size of apple trees, I discovered a more stable world in which to connect with and serve the people of North Korea. As an NGO program director, I can serve for a season as a facilitator, but my science-based colleagues can contribute to the longer-term cultural shift that naturally follows the progression of agricultural development. It was Thomas Jefferson who said, “The greatest service which can be rendered any country is to introduce a new plant to its culture,” and in that spirit Mercy Corps has been seeking ways to positively impact the apple orchard industry in North Korea.

Our recent journey there showed me that the research, studies, and outcomes of our friends and colleagues in the scientific community have created a platform of opportunity to help ease some of the greater tensions on the Korean Peninsula. By engaging in a non-political arena that dramatically affects the lives of Koreans, agricultural (and other science and academic) exchanges have opened doors of communication and assistance that can mutually benefit farmers, consumers, students, professors, and the cultures of both countries. Several U.S. NGOs are currently engaged with their local universities in the management of dairies, hospitals, greenhouses and other farms in North Korea. In our experience in Kwaŭ County, the farm managers and their political counterparts respect the professionalism and scientific instruction brought by our academic colleagues. The recent management methods proposed by the OSU team during this trip offered a significant opportunity to improve the productivity of the orchards. The scientifically-proven information was not a political theory or an economic data point, but rather a useful tool that could be applied with positive results. In this case, it was not political change that would improve the trees; it was knowing how the weather patterns could help determine when to spray for the peach fruit moth.

This kind of technical, practical exchange of information leads to stronger relationships and opportunities for cooperation that eventually are recognized by the political authorities as having value. The more practical our exchanges can be—in terms of improving the harvest—the more valuable our relationships can become.

In order for Mercy Corps to establish more effective agriculture programs, we needed to bring some horticulture experts to assess our work and its potential, so we turned to our local land-grant institution, OSU. When the School of Horticulture was presented with the opportunity to assist in apple horticulture in North Korea (as they have also done in South Korea), they

realized that there was an institutional capacity to assist both our agency and their own researchers. They provided two apple experts—including the head of the department—and one entomologist.

Together the four of us traveled to North Korea in mid-September. During our trip I asked the entomologist, Dr. Helmut Riedl, how many countries he had been invited to visit because of his expertise in insects. He replied, “About twenty.” As an international studies major, I was fascinated. I realized that the power of international relations was significantly enhanced by this gentleman with a youthful curiosity for bugs. As we walked down the streets of Pyongyang, I would ponder what political slogan was written on the big red banners hanging on the sides of the apartment buildings, while Helmut was wondering what species of insect had eaten all the leaves of the poplar trees lining the streets.

When we visited South Hwanghae Province and toured apple orchards, I wanted to know the history of the farms, while Helmut tore a leaf from the tree, pulled out a magnifying glass, and counted the number of mites on the leaf’s underside. My other horticultural colleagues likewise started counting russet spots on the apples, and inquired about what they quickly deduced must have certainly been a late frost. Needless to say, our local hosts were far more engaged by the OSU team than they were by my interest in the history of farm collectivization.

I witnessed a level of engagement with the professors and apple farm managers that I had not seen on my earlier trip with our agency’s president, donors and a former U.S. ambassador. The farm managers may have been impressed with the prestige of our earlier visitors, but they connected professionally and personally with their agricultural counterparts.

The farm managers clearly respected the technical and professional knowledge of the team that we had brought to meet with them. In a matter of hours our team had figured out ways to reduce the level of pesticide use by over 50 percent, and was able to make recommendations to protect the orchards’ fruit bearing potential for years to come. Likewise, the OSU professors were impressed with the commitment and knowledge of these farm managers who were tasked with managing nearly 70 percent of the North Korean apple orchards. Both sides could quietly mourn the lack of available resources that were needed to properly care for these trees, then discuss means of collaborating on potential research projects in several small pilot-scale projects. Although we did not speak Korean, and they did not speak English, it was clear that they all spoke *apples*, and this common horticultural language was spoken for several hours each day that we were together. It turns out that *apples* is the language of opportunity for our ongoing work in North Korea.

Mercy Corps has been involved in the North Korean apple industry for the past ten years. We have sent hundreds of thousands of trees to North Korea, and made more than twenty visits to the orchards of Kwail County.

The farms have been the catalyst for several prominent civic and business leaders from the state of Oregon to travel to North Korea to see these farms and to invest in relationships with our friends at KAPES.

Further, our agency has also hosted multiple agricultural delegations of North Korean farm managers and agriculture ministers here in Oregon, at times in partnership with both OSU and with the Oregon Department of Agriculture. We have been able to introduce North Koreans to U.S. farm management practices, pruning strategies, integrated pest management and other apple-related subjects; most importantly, we have been able to introduce them to life in America. Granted, our experience has been trying at times. Although we have had success in arranging technical visits, they are not without their difficulties. Arranging the visits has its own complicated hurdles, and executing a successful visit has others. In fact, at times we have to gauge our success by whether or not a visit occurs at all. During our most recent visit, the OSU team was able to make some simple suggestions on reducing pesticide use, but at the end of our meeting we were informed that the meetings scheduled for the next day had been cancelled, and the opportunity was lost to follow up on our technical advice. Fortunately, Mercy Corps has the kind of relationship with KAPES where we can have a frank discussion about these kind of frustrating interruptions in our coordinated plans and their detrimental impact on our ability to secure and maintain good programming. The receptivity to this kind of feedback has been cordial, and we do not know its long-term impact, but it is encouraging that we can now voice displeasure in a situation without threatening the overall partnership. We believe that there is a willingness to listen and stay engaged in the conversation even if it does not immediately translate into a change in circumstances.

Further, we recognize that success within our relationships at KAPES is subject to several factors outside the control of its government agency. For instance, the management of farms in the DPRK is not governed under a single bureaucratic institution or ministry, which in turn complicates any cooperation we might otherwise be able to facilitate between in-country orchards and internationally with cooperating agencies. Farms in most counties are coordinated through the National Fruit Company or Academy of Agricultural Sciences, but the farms in Kwail County are under the authority of Pyongyang City, and we do not know exactly who. Mercy Corps must coordinate its activities through KAPES, but the European NGOs work through other bodies within the DPRK. This makes partnership in programming difficult as we are not always aware of who makes the decisions or how best to respond to what the needs may be, as the farm managers may have one perspective from their work on the ground, while the authorities in Pyongyang express additional or competing priorities, and our European colleagues have different views altogether. During our most recent trip we were given a list of priorities from the farm managers for ways Mercy Corps

could assist with the orchards, while we were given a completely different list from the political authorities in Pyongyang, and the European agencies all had their own opinions. Fortunately, our OSU apple experts could help synthesize everything into some concrete steps forward that in the end, we believe, will help to accomplish everyone's goals.

Our program goal is to increase overall fruit production in the region. The achievement of that goal will be determined primarily by our ability to meet the political objectives of our hosts in Pyongyang and synchronize them with the agricultural science that nature requires in order for trees to bear fruit. One of our responsibilities as a humanitarian agency is to help the political powers realize that we are all on the same team when it comes to agricultural goals.

As a final example, we are currently considering an option to coordinate a nationally integrated pest management program for apples, which is a basic requirement for any farm to succeed in the long term. As we have started to uncover which foreign and domestic agencies (including NGOs) are involved in apple orchards, we have learned that they share the same goals but do not work with each other. This can make the sharing or gathering of information somewhat difficult. However, as we have learned who is doing what and where, we have acquired a broader picture of what needs to be done, and have started making some program recommendations to our North Korean colleagues that could greatly improve their chances of meeting their political—and our humanitarian—goals: an increase in fruit production.

In conclusion, Mercy Corps' experience in the DPRK over the past twelve years has shown us that the successes and relationships developed from these agricultural programs provide a platform for subsequently larger, more significant levels of humanitarian engagement in times of need. Academic exchanges have enhanced our ability to help in the short term of the ongoing agricultural project, and this in turn has strengthened our capacity to serve the broader needs of the country in greater times of crisis. During the food shortage in 2008, Mercy Corps was asked to lead a consortium of five NGOs to implement a food assistance program that fed 895,000 people each month for eight months. Similarly, our continued presence in the apple orchards has allowed Mercy Corps access to the local hospitals, which in turn has resulted in programs that have supplied medical equipment and medicine to five hospitals in South Hwanghae Province. These food and medical programs were funded by the U.S. government, which demonstrates how an organization like Mercy Corps can serve as a humanitarian bridge in an official capacity.





## U.S.-DPRK SCIENCE ENGAGEMENT CONSORTIUM

***Linda Staheli***

The Democratic People's Republic of Korea (DPRK) has been politically and economically isolated for more than 50 years. Very few opportunities exist for the people of the country to constructively engage with and learn about the outside world. Science diplomacy and engagement has long proven to be a successful avenue through which politically polarized countries have built peaceful ties, and it is a profound mechanism by which otherwise isolated populations can gain detailed and substantive knowledge about the world outside of their borders. However, the opportunities to engage in science diplomacy with the DPRK have been limited and hard won. In 2007, the U.S.-DPRK Science Engagement Consortium was created, inspired by the Syracuse University-Kim Chaek University collaboration. The founding members of the Science Engagement Consortium are CRDF Global (formerly known as CRDF), Syracuse University (SU), the Korea Society (TKS), and the American Association for the Advancement of Science (AAAS). This chapter is an overview of outcomes from the U.S.-DPRK Science Engagement Consortium as it moves forward, particularly with a focus on academic science exchanges.

### **U.S.-DPRK Scientific Exchange Program Expansion Workshop, May 22, 2007**

At its annual meeting in February 2007, AAAS sponsored a panel and working lunch on U.S. scientific cooperation with the DPRK. Following those sessions, SU and CRDF Global met to discuss the SU-Kim Chaek collaboration and the possibilities for taking the SU experience to other U.S. universities and institutions for expanded scientific cooperation. As a result, CRDF Global and SU organized, with support from AAAS and TKS, a workshop on May 22 funded by the Richard Lounsbery Foundation. Fifty participants, largely drawn from nine U.S. universities (Syracuse, Cornell, Rice, Texas Tech, SUNY-ESF, Penn State, University of Missouri, University of Washington,

and Williams College), along with U.S. government and non-governmental representatives and the donor community, attended the one-day workshop. The objectives of the workshop were to highlight the importance of addressing scientific exchange cooperation with the DPRK; to provide a forum for institutions and organizations that have engaged in research collaboration with the DPRK to share their experiences; to promote a better understanding of requirements for engaging the DPRK, particularly on the legal front; to discuss opportunities for funding collaboration; and to facilitate interaction among the diverse group of participants to address needs and opportunities.

### *Workshop Discussion*

Speaking from personal experiences, several speakers recognized the DPRK's sincere desire to build a cooperative relationship with American institutions. They noted the political environment and how a dialogue on scientific collaborations can help the relationship move forward and contribute to long-term political security and economic prosperity for the Korean Peninsula. Specific advice included the following:

- Develop long-term strategies based on strong institutional commitment;
- Develop working knowledge of Korean history and culture;
- Follow all laws and regulations that govern U.S.-DPRK relations;
- Do not underestimate the DPRK's science and technology capabilities; acknowledge yourself as an equal partner, as collaboration should be mutually beneficial;
- Prevent misunderstandings arising from cultural and language differences by asking questions and not making assumptions.

CRDF Global provided an overview of its experience over the past 12 years in advancing international scientific partnerships globally, often in regions where scientific cooperation is challenging. Members of SU and the Korea Society spoke of their long and enduring partnership with Kim Chaek University in the DPRK. AAAS noted its experience working with scientists and partner scientific organizations around the world and expressed a strong desire to utilize its expertise and international network of some 140,000 members to encourage DPRK scientists to more fully join the global science enterprise.

### **Lessons learned in the workshop included:**

- *Put it in writing* to build trust and clearly communicate each other's intentions in order to mitigate resistance caused by lack of understanding;
- *Establish unwavering institutional commitment* with a long-term

outlook, so that collaboration proceeds on a solid foundation based on trust even in the face of uncertain political relationships;

- *Maintain focus* and avoid the temptation to spread yourself too thin;
- *Do not overcommit* and lose sight of your own missions, objectives, and institutional capacity to deliver;
- *Maintain consistency of the participants* to encourage continuity and sustainability of the collaboration;
- *Encourage informal communication* and social interactions to build trust and a friendly environment for constructive discussions.

The discussion also addressed the legal environment for working with the DPRK, including regulations that restrict trade and export administration regulations. Organizations and institutions must work closely with lawyers to comply with all U.S. government export control regulations.

Workshop participants agreed that truly effective collaborations will require that a network of funding institutions, government agencies, private sector entities, NGOs, and DPRK entities work together as equal and active partners in a coordinated fashion. Participants further emphasized the need for greater cooperation with the donor community and maintained optimism that such collaborative efforts could generate a suitable environment for scientific collaboration with the DPRK.

Despite the challenges, participants agreed to work to foster concrete academic-based scientific collaboration with the DPRK. Participants expressed reasoned expectations that the workshop would be a precursor to increased scientific collaboration with the DPRK and, as more financial resources become available, will not only set the stage for scientific engagement with the DPRK but ultimately establish connections with social science and humanities programs in the DPRK as well. Finally, workshop participants agreed there should be a concerted and coordinated effort to understand the DPRK's academic science priorities.

#### **Specific workshop outcomes include:**

- The workshop was unprecedented in that it brought together key stakeholders from a wide variety of organizations to discuss shared experiences, lessons, challenges, wisdom, successes, and failures regarding scientific collaboration with the DPRK, all of which expanded the range of perspectives and encouraged rich discussion and interaction between many individuals and groups that had not previously had the opportunity to interact with each other.
- Candid discussions resulted in a shared and strengthened understanding of requirements and processes for academic engagement of the DPRK.

- The workshop demonstrated a strong interest by a number of U.S. universities to work toward collaboration with DPRK academics in a variety of key areas of scientific exchange, including but not limited to agriculture, information technology, health, and environmental conservation.
- The workshop set in motion a process to develop an action-oriented planning and coordination body to further explore collaboration with the DPRK in these and other scientific areas of mutual interest. That body will collaborate with stakeholders to identify priorities among institutions and will also provide outreach to the larger scientific community. SU, CRDF Global, AAAS, and the Korea Society agreed to provide leadership to a consortium.

### The Establishment of the Consortium

The Consortium was established in August 2007 with an agreement signed by all four founding members and an initial contribution of \$10,000 from each to fund its activities and a small secretariat based at CRDF Global. The Consortium has since worked (via phone meetings twice a month) to educate both governments about the value of scientific engagement as a means of fostering better relations between the two countries—helping policymakers understand how science engagement is different from humanitarian assistance and security engagement—and underscoring that scientific engagement would focus on areas of mutual benefit and not focus on science areas that could be dual use. For the United States this required a significant number of sessions with U.S. stakeholders (scientists, university officials, U.S. government and congressional officials, and members of the donor community) and engagement with the DPRK via the UN Mission in New York City, an effort helped significantly by the solid relationship and trust already established by SU and TKS members of the Consortium.

Consortium members have traveled to New York on numerous occasions and launched a three-year effort to bring senior DPRK UN officials to scientific meetings, specifically the annual AAAS meetings in Boston (2008), Chicago (2009) and San Diego (2010). The DPRK travel, approved by the U.S. government, has been essential in educating senior DPRK UN officials about the value of science engagement and more importantly, in generating the trust and strong relationships necessary to building the collaborations envisioned. The Consortium has also worked hard to ensure that weekly copies of *Science*, published by AAAS, are sent regularly to the DPRK. This has been a feat that has been challenging but highly valued by the DPRK, as we saw firsthand on our visit to Pyongyang.

## Delegation Visit to Pyongyang

In late 2009, the Consortium was informed by the UN Mission that the DPRK State Academy of Sciences (SAOS) had extended an invitation for the Consortium to send a delegation to Pyongyang. The six-person delegation, led by Nobel laureate Dr. Peter Agre, visited Pyongyang December 10–15, 2009.<sup>1</sup> The delegation was received enthusiastically by their DPRK counterparts as the first U.S. science delegation to visit their country, and was granted the schedule it requested. Below are short descriptions of the delegation's meetings in Pyongyang during which some areas of potential mutual interest for the envisioned scientific engagement were identified.

### *Branch Academy of Biology*

The director of the Branch Academy of Biology welcomed the delegation and gave a short tour of a few research laboratories, focusing primarily on cloning research. Five of the research directors of the academy joined the delegation for a presentation and discussion. The academy includes an institutes of botany, zoology, and experimental biology; a center for biomedicine, a cloning center, an information center, and an agricultural medicine center; a mushroom institute; and a research center of biodiversity and eco-engineering. The academy was founded in 1961 and includes eight institutes, ten experimental farms, a botanical garden, and local laboratories with 1500 members. The broad focus of the academy is research on fundamental biology, research on applications that contribute to national development goals, and the development of high-tech, including biotechnology and nanotechnology.

### *Branch Academy of Cell and Genetic Engineering*

The president of the academy led the delegation on a tour of the facility followed by a presentation and discussion. The academy was founded in 1991 by the late president Kim Il-sung and focuses on bio-pharmaceuticals, stem cell research, transgenic crops via plant biotechnology, bioinformatics, bio-safety, and plant tissue cultures. In short, it covers all areas of biotechnology, bioengineering, including basic research. There are 20 professors, 86 senior researchers, and 40 PhD students. Students are recruited from the SAOS-affiliated University of Sciences. The Central Branch for Bioengineering is the leading division of the academy that engages internationally in joint research. The president affirmed strongly that the DPRK has made science and technology a priority, and in this connection many researchers go overseas and maintain research connections with their overseas colleagues. The president also noted that the average age of researchers is 30, and that 50% of scientists from his academy have international experience. In response to questions about modalities of cooperation, he listed (1) joint research saying, "Our scientists go abroad to conduct research," and (2) collaboration with other organizations through contract research. The academy stated that it

collaborates with a number of countries including China, Thailand, Malaysia, India, Iran, Russia, Germany, Sweden, Bulgaria, and Austria.

### *Institute of Hydraulic Engineering*

The director of the institute gave a slide presentation on the institute's research focus on water resources management in the Taedong River Basin. The institute was founded in 1959 and the main purposes of its research are to protect cities against flood damage, supply sufficient water for industry and irrigation, supply municipal water, generate hydropower, ensure navigation, and support the operation of fisheries. The institute also records and disseminates information on annual precipitation.

### *University of Sciences*

Fifteen senior scientists welcomed the Consortium as the first American delegation to visit the University of Sciences, which was founded in 1967 to train and educate scientists under the auspices of the SAOS. The university has 5000 students; 150 PhDs and professors and 7 departments, including physics, chemistry, biology, computer sciences, and electronics, with English language training and five research institutes. There are 20 research institutes "in the valley" where students conduct their research.

There are hundreds of universities, but the purpose of this one is quite different in that professors from the University seek the best students from Middle School #1 and other genius training schools. Graduates from this university direct and lead SAOS research institutes and departments. They have a great strength in education in basic sciences, with math and physics being a major focus, along with computer science and English education. An electronic library is under development; the university noted that it would have four floors, 10,000 square meters, an electronic reading room, and space for international scientific seminars and lectures. The university plans to have it completed by 2012. International science cooperation is very important. Germany values the university's math and physics graduates, and the Russian Far East University president had visited the university. DPRK professors travel to other countries to give lectures.

Dr. Agre gave a presentation on his research in aquaporins that led to the Nobel Prize, which was very positively received. Aquaporins are water-channel proteins that move water molecules through the cell membrane.

A number of senior scientists then stood up and gave short presentations on their research in English in the following areas:

- Mathematics and the greatest math problem
- Protein structure prediction
- High-temperature superconductivity
- Laser plasma systems projects

- Microbiology, digestibility of animals
- Time series predicting
- Computer architecture
- Nano materials
- Transgenic and transgenic bean; stem cell isolation and culture.

### *Institute of Thermal Engineering*

Dr. Jong Jinchang welcomed the Consortium and described the institute with a PowerPoint presentation. Following is a rough summary. The institute was founded in 1973. More than 80% of the DPRK's energy comes from coal, oil, and other fossil fuels (they said this is compared to 25% in some other countries), so a major issue is the effective use of coal. The DPRK uses coal in thermal power plants, as there is virtually no crude oil or natural gas in the DPRK; 100% of oil is imported. Increasing energy efficiency is a second priority; increasing efficiency of thermal processes—development of new heat exchanges or new elements; heat pump. Research in renewable energy: mainly in solar; using boil water to generate steam. Development of rural energy is a very big priority, in biomass. The goal is to provide 80% of a rural household's energy in biomass gasification with biomass pellets.

### *Korean General Red Cross Hospital*

The Consortium was given a tour by the director of the hospital of the hospital's orthopedic surgery, ENT, and general surgical facilities, and was also showed rooms with MRI and CAT machines. The hospital was built in 1948. Patients receive medical care free of charge; it is the largest hospital in the country. Doctors are recertified every year. There are 11 years of compulsory education; after age 17, doctors go from "middle school" to medical school. It takes 6 years for a general medical college education followed by a postgraduate work. When asked, representatives of the hospital stated that lack of medical equipment and supplies is their biggest problem.

### *Grand People's Study House*

The Consortium was given an excellent tour by Dr. Jong Thae On, head of the complimentary book section, and Dr. Kim Sung Gi, sub-director of the Foreign Exchange Department. It was noted by our hosts that they strongly appreciated receiving *Science*, commenting that they receive many donations of English language books from the United States—including from NGOs such as the Asia Foundation. The Grand People's Study House is a library and a lecture hall with a social education center that provide lectures on a range of subjects; the House is in the process of becoming fully digitalized. It has its own foundation; it also has its own intranet. Dr. Thorson noted that the e-library is an important way to advance science and it is the objective of



the DPRK to reach world standards regarding its e-library. In response it was noted that in 2002 officials from the Study House visited the United States, specifically the Library of Congress and Harvard University. The Study House has had international cooperation with many other countries.

*Central Informational Agency for Science and Technology, State Commission for Science and Technology*

The mission of the agency is to provide the latest information to scientists; it has more than 10 varieties of publications and is a leading network service for S&T information. The agency is actively conducting exchange and information with other countries, including an international S&T information center in Moscow and the Asian Pacific Information Network. (The agency represents the DPRK in both collaborations.) The agency has many ways that it can access information: by purchasing information, exchanging information, or soliciting donations from international organizations and private foundations. The agency's main task is to develop an information retrieval system, a search engine. It presented the KRDB information retrieval system, which is twenty years in development; the agency has 120,000 registered users in Korean, English, Chinese, Russian, and Japanese.

## Next Steps

The Consortium's visit to the DPRK in December 2009 resulted in the identification of several mutual areas of interest with DPRK Academy of Sciences, based on a draft MOU that was signed and finalized by both the Consortium and the SAOS representatives within four months of the visit. The collaborations are to focus on areas of mutual interest and areas that are not dual use.

The final MOU highlights the following areas:

1. Identification of shared research priorities, such as basic sciences, biological sciences, and information technology
2. Reciprocal exchanges  
A reciprocal science delegation visit to the United States by the SAOS  
Regular exchanges, as agreed by the two sides
3. Joint workshops and training  
E-library/virtual science library  
English language training for scientists  
Science and math education  
Talent identification and development  
The preparation of research papers for publication  
Current biomedical research approaches  
Renewable energy, such as solar, wind, hydro, and biomass

4. Joint publications (further details will be spelled out in additional sub-agreements); translation of high-impact articles from *Science* over the past ten years

A more detailed example of one area of mutual interest is in the development of digital libraries. Building on the SU-Kim Chaek collaboration in the information sciences and digital libraries, CRDF Global joined SU in discussions with the chancellor of Kim Chaek University in February 2010 regarding the possibility of establishing a virtual science library—similar to what CRDF Global developed with the Iraq Virtual Science Library<sup>2</sup> and is now introducing in other countries. CRDF Global and SU, the latter of which has experience working with the DPRK in digital libraries, provide a solid foundation to move forward on such a project—should funding be identified—as one of a handful of first steps to build scientific capacity in the DPRK so the DPRK is better positioned to work with U.S. scientists.

## Conclusion

Over the past three years, the U.S.-DPRK Science Engagement Consortium has successfully laid the groundwork for expanded academic science engagement with the DPRK by working closely with both governments, university stakeholders, and both countries' scientific establishments. Consortium members have met monthly, held dozens of meetings, and traveled to NYC on numerous occasions to consult with the UN Mission. CRDF Global's fifteen years of experience implementing thousands of research collaborations and building scientific capacity globally, coupled with AAAS' prominence as the world's largest professional science organization and publisher of *Science*, builds on the already established success of SU's academic research engagement with the DPRK via Kim Chaek University. The Consortium is able to engage the top scientific leaders in the United States, as was demonstrated when AAAS president and Nobel laureate Peter Agre enthusiastically agreed to lead the Consortium delegation to Pyongyang in December 2009. Consortium Members were further able to help DPRK counterparts during this initial stage with regular contributions weekly to the DPRK of Science.

In three subsequent meetings with DPRK officials in the United States in January and February 2010, two in New York and one in San Diego, the DPRK UN Mission reinforced its commitment to working with the Consortium and enabling foundational projects to become a reality. The UN Mission demonstrated this best by offering to help the Consortium with raising funds. The Consortium has developed a strategy for the next three years that involves identifying specific areas for research collaboration and capacity building initiatives, developing enhanced communication modalities including a newsletter and LISTSERV, creating evaluation metrics to ensure outcomes and build on lessons learned, developing an advisory body, and

formalizing the secretariat to ensure that collaborations are identified and funding is secured.

Consortium members, many of whom have worked in the U.S. government managing international science engagements, have the expertise globally and with the DPRK to move science engagement collaborations forward. Consortium members are also fully cognizant of the challenges of engaging the DPRK and recognize the value of small, incremental steps. The Consortium has invited the DPRK SAOS to send a five-person delegation to Atlanta in 2011 and expects to move to the next phase in its engagement now that the first three-year phase of the Consortium is finalized.

In sum, long-term engagement is the right strategy with the DPRK. Engaging in non-sensitive areas of research collaboration—areas that are mutually beneficial—can serve to eventually help bring the DPRK scientific community into the world community of science. This is in the long-term interest of the United States, the DPRK, and the world.

## Notes

<sup>1</sup> Delegation members: Dr. Peter Agre, university professor and director of the Malaria Research Institute at the Johns Hopkins Bloomberg School of Public Health and 2009-2010 president of AAAS; Ms. Cathleen Campbell, CRDF president and chief executive officer; Dr. Stuart Thorson, Donald P. and Margaret Curry Gregg Professor in the Maxwell School at SU and fellow at SU's Systems Assurance Institute; Dr. Vaughan Turekian, chief international officer for AAAS and director of AAAS's Center for Science Diplomacy; Mr. Max Angerholzer, executive director and secretary of the Richard Lounsbery Foundation; and Ms. Linda Staheli, U.S.-DPRK Science Engagement Consortium coordinator and CRDF senior staff associate. Dr. Fred Carriere, adjunct professor at SU, was to join the delegation but had a medical emergency in Beijing en route and returned to NYC. The delegation to Pyongyang was largely funded by the Richard Lounsbery Foundation.

<sup>2</sup> See <http://www.ivsl.org/>.

# LESSONS FROM NORTH KOREA'S PREVIOUS EXCHANGE PROGRAMS

*Kyung-Ae Park*

Over the years, North Korea has been considered the most reclusive country in the international community. From the mid-1990s, however, Pyongyang increased its contacts with the outside world, seeking rapprochement with other countries. It normalized diplomatic relations with various countries in the early 2000s, and these diplomatic offensives have resulted in increased numbers of overseas visits by North Koreans.

The present study examines the lessons that can be derived from North Korea's educational, technical, and training programs and exchanges of earlier years, especially those between the mid-1990s and early 2000s. The study is based on a survey of 66 cases, which can represent a large enough sample to suggest patterns and trends in North Korea's exchange programs at the Track Two (non-governmental) level. Analysis of the trends and patterns is focused on illuminating the following issues: In what areas is North Korea interested in pursuing exchanges, training, and dialogue? Who are the players on the North Korean side? Are there any signs of "opening"? What are the objectives and goals that North Korea is trying to achieve through these activities?

## **Lessons for Future Strategies from Previous Exchanges<sup>1</sup>**

Several characteristics appear noteworthy regarding the pattern and nature of North Korea's past engagement in exchange and training programs.

### *1. Why the Fluctuations in Number of Visits?*

The number of visits by North Koreans for various Track Two programs has increased over the years. This indicates that North Korea is increasingly linking itself to the international community and making efforts to move away from isolation and toward engagement. However, in many cases, exchange programs experienced a slowdown and programs planned were canceled or delayed. For example, between the end of 1998 and early 1999, many programs organized by the UNDP, World Bank, IMF and other institutions in the United States, Australia, China, and Japan were not implemented as

scheduled.

A series of political defections by North Korean diplomats in 1998 appear partly responsible for the halting of these programs. After the former ambassador to Egypt defected to the United States in August 1997, three more diplomats followed suit in 1998. A third secretary stationed in Italy at the FAO defected in February of that year. In March, a councilor who was in charge of science and technology at the DPRK embassy in Thailand sought political asylum. Finally, a technology attaché at the embassy in Switzerland defected in May. After these incidents, North Korea seemed to have decided to reduce the level of exposure of its people to foreign countries, restricting any long-term stay in other countries, even for training purposes. Given that these defecting diplomats were technocrats, Pyongyang might have decided, in order to prevent any further defections, to dispatch fewer training and exchange delegations, whose members are mostly professionals and technocrats.

Another factor that might have affected North Korea's reluctance is the publicity surrounding these activities. Some of the planned activities such as the World Bank programs were widely publicized and aroused interest among several South Korean organizations wishing to be involved. This could have eroded North Korea's enthusiasm. In addition, if these programs were publicized and covered by press reports, it could give the impression to the outside world that North Korea was pursuing economic reform, since most of these programs are geared toward an understanding of the way a market economy functions. As far as North Korea is concerned, its economic disarray is not due to a fundamental failure of its economic structure, but rather due to the collapse of the world socialist market, American economic sanctions, and natural disasters. North Korea, therefore, actively seeks to avoid any publicity that might suggest that it is making steps toward "economic reform" or system transformation.

In considering the future strategies of exchange programs, we need to bear in mind that a high level of publicity surrounding the programs can be counterproductive and that North Korea will be cautious in order to control the flow of exchanges and contacts when they pose a potential threat to its political system. Considering that Pyongyang's focus is first and foremost regime security, and that the regime perceives contact with the outside world through this lens, exchange and training programs need to be benign in nature and tightly managed so as to eliminate any suggestion of political maneuvering on the part of the host country.

## *2. Who Are the Sponsor Organizations in North Korea?*

North Korean sponsor organizations have become quite diverse, including both governmental and "non-governmental" groups. However, many "non-governmental" groups such as the Korean Association of Social Scientists and the Asia-Pacific Peace Committee often send Ministry of Foreign Affairs

officials under Track Two auspices. Some U.S. and South Korean government officials suspect that several of the unofficial organizations in North Korea are merely front groups of the Foreign Ministry or other government organizations. In addition, virtually every exchange group includes a “coordinator,” whose role is to ensure the group’s activities are consistent with government policies.

More recently, Pyongyang has shown some flexibility in allowing host organizations to select their own counterparts in North Korea. Although we cannot infer from this flexibility that the regime is relaxing its control over exchange programs, it would be a good strategy for the host to identify a specific sponsor organization and clearly indicate its preference for that organization. As Pyongyang gains more experience with exchange and training programs, host organizations will presumably have a greater degree of choice in selecting organizations that they wish to host, thereby facilitating more meaningful and beneficial programs. However, while the degree of choice stands to increase in the future, it is reasonable to expect that North Korean sponsor organizations will continue to be tightly regulated and monitored by the government. Host organizations will continue to have to work within the bounds set by Pyongyang, but with careful program planning and selection of sponsor organizations participating in exchange programs, both parties’ level of satisfaction with the exchange experience should increase.

### *3. Who Are the North Korean Participants?*

North Korean participants have become diversified over the years, including many technocrats and experts. In the past, the common pattern was repeat visits by a relatively small number of individuals—political elites who were allowed to travel abroad and to represent the country. However, for more recent training programs and study tours, experts were chosen as participants, and for many of them, these programs were their first foreign visits. Meanwhile, political figures continue to dominate the delegations for academic exchanges and Track Two dialogues.

As with the case of the sponsoring organizations, requests for participants with specific background or expertise would be a recommended strategy. An exchange composed of experts rather than political figures will presumably result in a more “unfiltered” exchange of knowledge, per se, which has a greater potential to equip our North Korean counterparts with the advanced skills and knowledge needed to address pressing issues in their country.

### *4. Who Provides Funding for the Visits?*

Host organizations funded almost all of the North Korean visits. With the notable exception of visits to the United States, and more recently to Europe, funding agencies are largely international organizations, including the UNDP, the World Bank, the IMF, the IMO, the WHO, the FAO, UNESCO, and

UNCTAD. They sponsored the majority of the training programs. In the United States, funds came mostly from non-profit foundations such as the Asia Foundation and the Rockefeller Foundation, universities, NGOs and private companies.

Although most of the expenses for North Korean delegations were covered by these organizations, it is notable that in 1999 North Korea began to fund some of its activities on its own. The Potato Study Tour to Hungary in March 1999 was funded by North Korea, and funding for six of the sixteen programs in the latter part of 1999 was also provided by North Koreans. These were all agricultural and medical programs, except for one academic visit, for which North Korea provided part of the funding. This indicates that North Korea has become more aggressive in pursuing training programs, especially in these two areas.

Nevertheless, what is clear for the future strategy of engagement programs is that the host organizations should be ready to bear all expenses for the programs. It is unreasonable to defer plans for engagement programs in the hope that Pyongyang will proactively seek out a program or initiate one at its own cost. Rather, expenses resulting from hosting these programs must be seen as “the cost of doing business” with North Korea.

### *5. What Are the Substantive Fields of Engagement?*

North Korea has been pursuing engagement mainly in substantive and pragmatic fields rather than in the areas where symbolic representation has value. The exchanges are concentrated in five fields: international law and business, agriculture, medicine, energy, and English language. This reflects the fact that North Korea has put priority on restoring its deteriorating economy and public health system, and especially on overcoming severe shortages in hard currency, food, medical supplies, and energy. North Korea has pursued training programs to learn international law and business transactions. This reveals that Pyongyang has realized the necessity of acquiring knowledge in these areas in order to deal effectively with the growing foreign commercial presence in North Korea and with the increasing business transactions with South Korean firms. It also indicates that North Korea has been preparing itself to do more business with capitalist markets in anticipation of the lifting of U.S. economic sanctions.

What this implies for future strategies is that host organizations should identify and focus on the areas in which Pyongyang is in need of engagement. A specialized approach to program planning and offerings is clearly in both the host organization's and North Korea's best interests. Moreover, the greater possibility of mutually beneficial exchange and the possibility of continued programs with a wider range of North Korean participants can be reasonably expected if an organization responds to what Pyongyang actually wants.

## 6. *Who Are the Host Countries?*

First, contacts for training programs and study tours are not limited to socialist or former socialist countries. In order to gain firsthand knowledge, North Korea has diversified its outreach to encompass many capitalist systems in Europe, Asia, North America, and Latin America. North Korea has sent delegations not only to friendly countries but also to countries with which it does not have diplomatic relations.

Second, Japan and South Korea are noticeably excluded from the diversified host groups, largely due to political considerations. In South Korea, during the Sunshine Policy era under the Kim Dae-jung and Roh Moo-hyun governments, there were several North Korean visits, especially at the governmental level. Nevertheless, North Korea has not been open to dispatching its non-governmental delegations to Seoul for long-term stays for engagement in training programs. Likewise, North Koreans have participated in academic conferences in Japan from time to time, but no major training programs have taken place there.

Political tension and deteriorating bilateral relations can have a huge impact on exchange programs. Clearly, politics dictates progress in these matters; therefore, host institutions should be prepared for unexpected political disruptions. North Korea has consistently displayed a degree of unpredictability in its dealings with foreign countries, and remains ever sensitive to perceived threats to its sovereignty and security. In light of this fact, host institutions should be well advised that carefully laid plans can be dashed with little notice, often due to circumstances well beyond their control. As has always been the case, exchange programs should nonetheless be pursued with patience and flexibility. Patience and deliberateness must be practiced by host countries when pursuing programs.

## 7. *Sensitiveness of the Social Sciences?*

North Korea tends to prefer training in social sciences in politically friendly countries. While technical training and training for hard sciences in areas such as energy, medicine, and agriculture have been conducted in the United States, programs for social sciences, including finance and business management, have taken place elsewhere. In the 1990s, these programs were mostly held in China, Australia, Thailand, Singapore, Pakistan, Hungary, Sri Lanka, Switzerland, and Sweden. All of them had diplomatic relations with North Korea, and they are characterized by being politically more independent and neutral.

North Korea's tendency to send delegations for social science training to politically friendly countries might be a sign of their intention to minimize the possible influence of "spiritual pollution" and to cope effectively with any politically sensitive incidents such as a political defection. Although the United States has hosted the greatest number of delegations, North Korea



appears very cautious in exposing its social scientists to the United States for long-term training. Even when American institutions have organized and sponsored training programs, they have taken place in other countries.

It remains to be seen whether this pattern will continue if North Korean delegation visits increase substantially in the future. It is entirely possible, however, that there is little room for potentially threatening nations to diversify their exchange programs in light of Pyongyang's rigid worldview. Further, considering the regime's "siege mentality," which has been exacerbated in recent years, it is unlikely that this worldview is bound to change in the current political climate. In the meantime, host organizations in countries that do not have diplomatic relations with Pyongyang might well be advised to focus on non-ideological, technical initiatives.

#### ***8. Why Explore Academic Contacts?***

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. For instance, a North Korean academic delegation to Canada met with Foreign Ministry officials in Ottawa; a delegation to the University of Georgia met with senators, members of the House of Representatives, and journalists in Washington, D.C., after the academic seminar. A delegation that visited New Zealand for a seminar at Victoria University also met with Foreign Ministry officials and exchanged views on ways of normalizing diplomatic relations.

North Korea seems to believe that academic exchanges should eventually lead to the improvement of bilateral relationships, and regards these unofficial visits as the key to official contacts in the future; they can use contacts and relationships established during their unofficial visits when opportunities for official dialogue arrive. As such, exchange and training programs can serve to facilitate meaningful dialogue in many cases, which proves their worth despite the many challenges entailed. When diplomatic channels are limited or non-existent, unofficial opportunities for dialogue must be cultivated. Bearing this in mind, it would be a good strategy to continue to provide academic exchanges, especially in countries with no diplomatic relations with Pyongyang.

#### **North Korean Goals in Exchange Programs and Their Implications for Future Strategies**

Whether Pyongyang's exchange programs are signs of deliberate efforts by the Kim Jong-il regime to open up the country is debatable. Some argue that the reform-minded technocrats in North Korea are initiating Track Two contacts as part of a process of moving toward transformation of political, economic, and social systems. In other words, the Western-devised concept

of a “soft landing” by North Korea is beginning to be realized. However, the pattern of North Korean involvement in exchange and contact programs does not support this argument. The pattern reveals, instead, that North Korea’s engagement is not comprehensive but carefully selective. North Korea’s engagement is selectively concentrated in such fields as agriculture, energy, medicine, and business transactions. Why is this so?

As the Chairman of the National Defense Commission and General Secretary, Kim Jong-il is in full control of North Korea. Moreover, the eternal authority of his father backs his leadership. However, as with any other regime, the North Korean regime has to prove itself in order to maintain its legitimacy. The ideological basis of Kim Jong-il’s legitimacy is provided by his status as the executor of the *juche* (self-reliance) idea. However, he will ultimately have to satisfy the people’s basic needs with his leadership performance. His ability to overcome economic difficulties, especially food, energy, and hard currency shortages, is directly linked to his performance-based legitimacy. The necessity for Kim Jong-il to demonstrate leadership through credible performance in these areas drives the current exchange programs and visits. Foreign contacts aimed at gaining more advanced knowledge contribute to enhancing Kim’s legitimacy, and, in the future, can be expected to do the same for the legitimacy of the heir apparent, Kim Jong-un. Thus, exchange programs and visits ultimately work to stabilize North Korea’s ruling system.

Kim’s performance in the economic area, however, is constrained by the inherent dilemma that he faces. On the one hand, he is bound to protect ideological purity to maintain the ideological basis of his legitimacy, which is accomplished most effectively under a tightly closed and controlled system. On the other hand, the economic performance basis of his legitimacy would be enhanced in a more open system. Thus, he presides over a system that has what Larry Diamond calls “generic vulnerability” built into it. Given this inherent constraint, North Korea has to be careful in selecting exchange programs so as to focus only on the programs that can yield economic gains beneficial to the regime’s consolidation.

In North Korea, there are a number of bureaucrats and technocrats who are considered soft-liners. Although they are more open-minded and may be less reluctant to enact economic liberalization, they also have vested interests in the maintenance of the regime, as they rise together or fall together with Kim Jong-il. Their tactical strategy toward the outside world, therefore, is to first prepare a “mosquito net” before they open any windows. They are determined not to let any “mosquitoes” into their system and thus carefully select what might come in through the net. Accordingly, they concentrate exchange programs only in selective areas essential to the regime’s survival. What North Korea is trying to achieve through these contacts is the enhancement of regime legitimacy.

## MOVING FORWARD

In this respect, various exchange programs that take place are the result of a rational calculation; these programs promise to bring political and economic gains and should, in turn, help to bolster the legitimacy of the regime. One thing that is clear to Kim Jong-il is that the foremost goal of his regime is to protect his ideological legitimacy. Therefore, he needs to prevent any undesirable side effects brought about by foreign contacts. Uncontrolled opening of the country will be detrimental to the ideological basis of his legitimacy. This suggests that any efforts by the outside world to infiltrate the country with the intention of reforming the society will not be tolerated. North Korea will resist any exchanges and visits that it perceives to be intended for such a purpose.

In sum, it appears that North Korea will continue to expand selected exchange and contacts in the future to enhance the performance basis of legitimacy. However, it will focus on promoting programs that are directed to substantive and issue-specific activities with limited goals and without political ramifications in order to protect the ideological basis of regime legitimacy.

## Notes

<sup>1</sup>The analysis is drawn from Kyung-Ae Park, "North Korea's Nongovernmental Foreign Contacts," *Korean Journal of Defense Analysis* 12, no. 1 (2000): 33–51.

## ABOUT THE CONTRIBUTORS

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**A**lthough there are no formal diplomatic relations between the United States and the Democratic People's Republic of Korea (DPRK), nonetheless there have been constant attempts by U.S. academia, friendship organizations, and NGOs to develop and promote educational interaction and exchanges between the citizens of these two countries. Have these attempts found success? What lessons can be learned from these experiences?

The essays in this volume originated from a conference held in November 2010 at the Walter H. Shorenstein Asia-Pacific Research Center (APARC) at Stanford University. The conference papers and case studies evaluated past educational exchanges between the United States and the DPRK, in the hope that through such discussions and self-assessments, effective strategies for future international educational exchanges can be developed.

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**COVER PHOTOS:**

DPRK PHYSICIANS ATTEND STANFORD TB LABORATORY TRAINING IN PYONGYANG, 2010 (COURTESY SHARON PERRY); KCUT DIGITAL LIBRARY UNDER CONSTRUCTION, 2004 (COURTESY STUART J. THORSON)



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