

Capacity Building at the Kaesong Industrial Complex: Implications for North Korea's Economic Zones

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This article examines the diverse efforts made to improve the capacity of North Korean workers at the Kaesong Industrial Complex (KIC) in order to draw out implications for the development and operation of special economic zones in North Korea. While the autonomy of North Korean workers is still limited, they were nonetheless able to bring about improvements in production through knowledge sharing with South Korean companies. North Korea realizes the importance of strengthening its human resources and legal capacities for the successful operation of special economic zones. North Korea has also displayed an interest and the will to learn about specific fields including legal systems, finances, and insurance. Having passed down new knowledge and experience about market economics to North Korean society, the Kaesong Industrial Complex can advance reforms and opening in the country.

Key Words: Capacity building, Kaesong Industrial Complex, Special Economic Zone, North Korea, reform and opening

Introduction

Special economic zones (SEZ) are generally defined as “designated areas in countries that possess special economic regulations that are different from other areas of the country and that generally implement measures that are aimed at bringing in foreign direct investment.”¹

Originally, special economic zones were operated by developing countries pursuing economic development to secure competitive power in exports and expand foreign trade. However, following

1. Namgoong Young, *Comparing North Korea's SEZ Investment Environment with China and Vietnam* (Seoul: National Unification Research Institute, 1995), p. 2.

China's establishment and operation of four special economic zones in the country's southeastern region in 1979 as part of the country's economic opening policy, the SEZ was transformed into a way for socialist countries to make the shift to capitalism.²

China used its SEZs to open the country's economy and develop the basis for the high degree of economic growth it enjoys today. Similar special economic zones have also been established in Russia, Eastern Europe and Vietnam. North Korea has been no exception. North Korea established its first free economic trade zone in the Rajin-Sonbong (Rason) region in 1991, and this was followed by further zones in Sinuiju (September 2002), Kungangsan (October 2002), Kaesong (November 2002), and the Hwanggumpyong-Wihwa Islands (2010). In short, the success of Chinese SEZs spurred the establishment of similar zones in North Korea, a country which has been plagued with both a lack of foreign currency and chronic economic difficulties.

North Korea's SEZ strategy is the centerpiece of the country's response to the socialist economic crisis. North Korea is pursuing a "planned and controlled compromise with the market economic system." However, the level of reform and opening of North Korea's domestic economy has been lower and more passive than China's. Nonetheless, for a country that has long maintained a closed economy in the name of "self-reliance," the moves it has taken are a major departure from policies of the past.

Borrowing from the Chinese SEZ model, North Korea established its own SEZs, as the leadership was motivated by the desire to invigorate the North Korean economy through capital brought in from developed western countries. However, the only successful SEZ in operation is the Kaesong Industrial Complex (KIC), which have been heavily invested by South Korean companies. Recently, North Korea has demonstrated a desire to further expand the country's economy by establishing another SEZ in the Hwanggum-Wihwa

2. United Nations Industrial Development Organization (UNIDO), "Export Processing Zones in Development Countries," *UNIDO Working Papers on Structural Changes*, No.19, UNIDO/ICIS 176, New York, August 18, 1980.

Islands region, but it is unclear whether this SEZ will be successful.

During the early stages of its SEZ strategy, China focused on implementing the “four modernizations,” as emphasized by Deng Xiaoping, which aimed at introducing advanced technology, management skill, modern knowledge, open policies and market economy-related laws and institutions. In the North Korean case, the role of the KIC, in contrast, is more restricted than the Chinese SEZs, and is simply focused on using low-paid labor to produce goods that are sold and exported to world markets, including South Korea. However, although it is fundamentally a product production center, the KIC has the potential to develop into a full-scale SEZ replete with distribution infrastructure, technology development, education and training facilities, and financial and commerce infrastructure. The diverse experiences that North Korean workers have had at the Kaesong complex will play a considerable role in expanding North Korea’s development of SEZs in the future.

The capacity building of North Korean workers at the Kaesong Industrial Complex, however, has thus far been limited. South Korean workers have generally been in charge of the complex’s development and management. While the role of North Korean workers has in fact expanded gradually across different fields, it has still been limited.

The building of capacity did take place relatively systematically in the establishment of a system of law, and improvements in operation and production. The former provided knowledge and know-how to North Korean managers, who were made up of those dealing with North Korean law. This also led to an increase in the development of legal systems and operational ability in the complex. In particular, for the purpose of increasing revenue, North Korean authorities showed a very proactive attitude toward learning about tax, insurance, financial, and other market economic systems. The latter concerned the increase in production ability following the provision of education and training to ordinary North Korean workers.

Out of the wide variety of capacity building cases, this article examines the human resources development of ordinary North Korean workers at the KIC in order to draw out implications for the current

and future development and operation of additional SEZs in North Korea.³

The Current State of Operations at the Kaesong Industrial Complex and the Management System of North Korean Workers

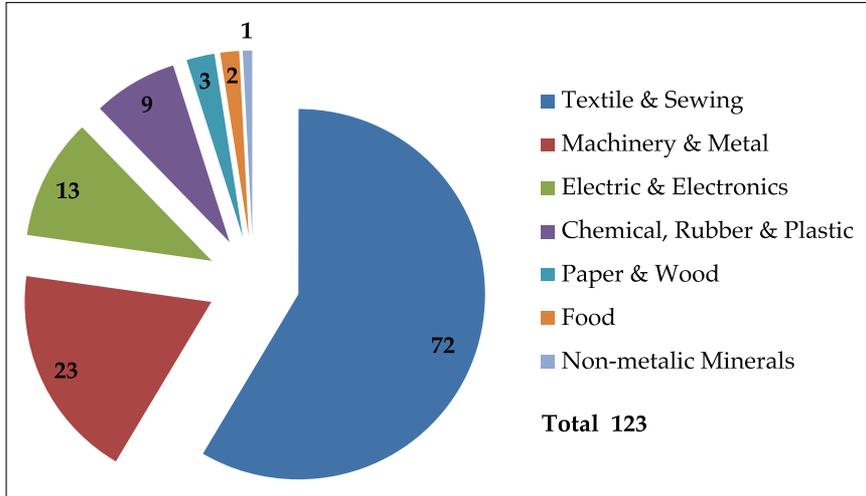
The KIC is now the only joint economic cooperation project between North and South Korea that has been able to produce some success in bringing together North Korea's work force and territory, and South Korea's capital and technology. A number of labor-intensive manufacturing companies from South Korea entered the complex and have been utilizing cheap North Korean labor to make profits. The significance of the KIC is a two-fold: first, South Korean companies have been able to employ large numbers of North Korean laborers, and second, North Korea has permitted this inter-Korean industrial complex to be built and for South Korean companies to operate in a militarily sensitive area. During the process of operating the complex, North Korea has learned about market economic mechanisms and know-how concerning the opening of its economy to the international market. However, the North Korean leadership has been considerably wary of its 'ill effects' on the North Korean system; in their view, having such a large number of North Koreans being hired and managed by South Korean companies could pose problems for the maintenance of the current regime in Pyongyang.

Current State of Investment, Production and Employment

A total of 123 South Korean companies hired approximately 53,500 North Korean workers since South Korean companies entered the

3. Beginning operations in December of 2004, the KIC was closed down and its workers withdrawn by North Korea for a period of several months starting in April 2013. The complex reopened in the fall of 2013, but has yet to rebound to full operating capacity, and still faces an unstable future.

Figure 1. Types of Industries at the Kaesong Industrial Complex



complex in 2004 and before the complex closed in early April 2013. The majority (72) of these South Korean companies are textile manufacturers (58.5%), 23 are machinery companies (18.7%), 13 are electronics companies (10.6%), and the remaining nine are chemical companies (7.3%).

While textile companies largely produce labor-intensive products, machinery companies operate using a production method that combines forms of high technology and intensive labor.⁴ More than 80% of the companies in the complex are mid-sized companies engaged in manufacturing activities.

Despite the worsening of inter-Korean relations following the sinking of the South Korean naval corvette (the ROK's *Cheonan*) in March 2010, and sanctions placed on North Korea by South Korea and the international community, the KIC has continued to increase its rates of production. The complex recorded a \$66,850,000 increase

4. Ministry of Unification-Mid-Small Businesses Development Institute, "Ways to Improve the Business Management and Investment Environment for Businesses in the Kaesong Complex," *Research Paper*, October 2012.

Figure 2. Current Number of Businesses Operating in the Kaesong Industrial Complex and Output

(units: \$10,000)

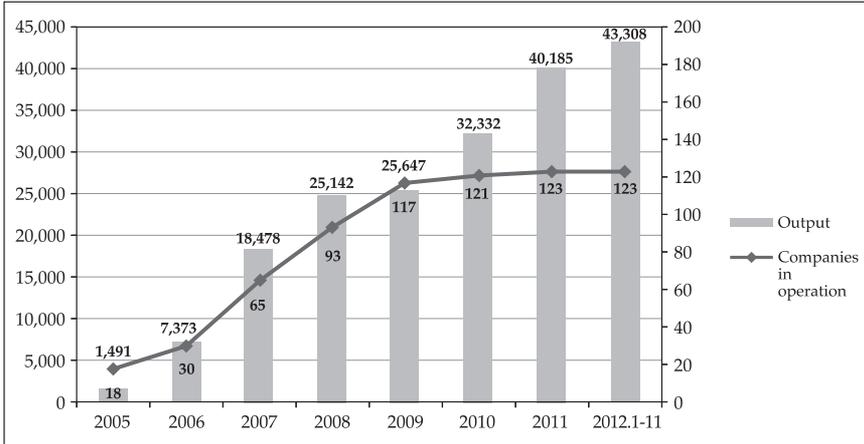


Table 1. Development of the Kaesong Industrial Complex by Year

Changes in the Kaesong Complex by Year						
Year	2006	2007	2008	2009	2010	2011
No. of Businesses Operating	30	65	93	117	121	123
No. of Workers	11,160	22,538	38,931	42,561	46,284	48,242
Output (US \$ in million)	89	185	251	256	323	262

in profits from 2009 (\$256,470,000) to 2010 (\$323,320,000). This increase continued in 2011 by 25.3% (\$401,850,000). From January to November 2012, the complex made a profit of \$433,080,000.

As of April 2013, South Korean companies at the complex have employed 53,500 North Korean workers. Approximately 4,000 to 5,000 new workers have been added to the workforce each month since 2009. The table below provides information concerning North Korean workers’ academic background and age. Most of the workers (81.9%) were high school graduates, while only 9.6% and 8.5% were graduates of universities or vocational schools, respectively. The

Table 2. North Korean Worker's Academic Background/Age/Gender

Academic Background (%)			Average Age			Age Distribution (%)					Gender(%)	
University	Vocational College	High School	Total	Male	Female	10s	20s	30s	40s	50s	Male	Female
9.6	8.5	81.9	36.7	41.2	35.3	0.9	23.6	33.2	35.0	7.3	27.9	72.1

average age of the workers was 41.2 for males and 35.3 for female—higher than in the past. The majority of workers were female (72% of the workforce). A total of 64% of the workforce were employed by textile companies, while 14% were employed by electric companies.

The Management System of North Korean Workers in the Kaesong Industrial Complex

The Kaesong Complex is located very close to South Korea at only five kilometers from the DMZ and 60-70 kilometers from Seoul. However, the complex operates under North Korean laws. While the complex is located within North Korean territory, it is spatially isolated from North Korea's other regions. This situation has directly affected the laws that are applied in the complex.

Isolated from other North Korean regions, the purpose of the KIC is for South Korea-based companies to establish businesses, build factories, hire North Korean workers, and sell what these factories produce in the South Korean market. The North Korean constitution and laws are applied to all areas of the complex, including the establishment of businesses, real estate, construction, labor conditions and safety, health, sanitation, environment, taxes and finances. North Korean law also applies to areas such as vehicular use, foreign currency management, advertising, access, and security. However, North Korean law rarely applies to matters of inheritance and marriage or issues concerning politics, diplomacy, military and other matters with no relation to the economy.⁵

5. Kaesong Industrial Complex Law and Regulation System Research Group,

The “Kaesong Industrial Complex Labor Regulations” also outlines the process for hiring workers as follows: 1) conclude a contract between the business and employment agency; 2) employment agency finds workers; 3) workers are chosen by business; 4) an employment contract is made between the business and worker; 5) business provides employment agency with fee; 6) labor guidelines are written up through negotiation with the head of the employees’ union.⁶

North Korea does not have a labor market because it is a socialist planned economy. In theory, the government guarantees employment for its people by placing them into jobs. This reality has impacted the employment system in place at the complex, and a special system of “employment agencies” had to be established. This system does not allow companies to directly hire workers through advertisements or interviews, but instead requires them to apply to the employment agencies when they seek to hire more workers. These employment agencies first negotiate with administrative organs in other regions for workers and then place them into jobs.

Workers at the KIC must be North Korean. However, in exceptional cases South Korean or other foreign workers may be hired if the proper documents are submitted to the Kaesong Industrial Complex Management Committee and North Korea’s Central Special Zone Guidance Development Department.⁷ Approximately ten South Korean, Chinese, German and Australian workers have been employed in the complex to manage technology or quality control duties.

In the beginning, cultural differences between North and South Korea caused considerable issues between South Korean companies and their North Korean partners. South Korean companies viewed

The Evolution and Future of the Law System in the Kaesong Complex (Seoul: Kyungnam University, Institute for Far Eastern Studies, 2012), p. 29.

6. These measures prescribed by the Kaesong Complex Labor Regulations, clauses 9, 10, 11, and 13.

7. Please refer to clause number 3 and 12 of the Kaesong Industrial Complex Labor Regulations. Ministry of Unification, *Collection of Kaesong Complex Laws* (Seoul: Ministry of Unification, 2012), pp. 227, 229.

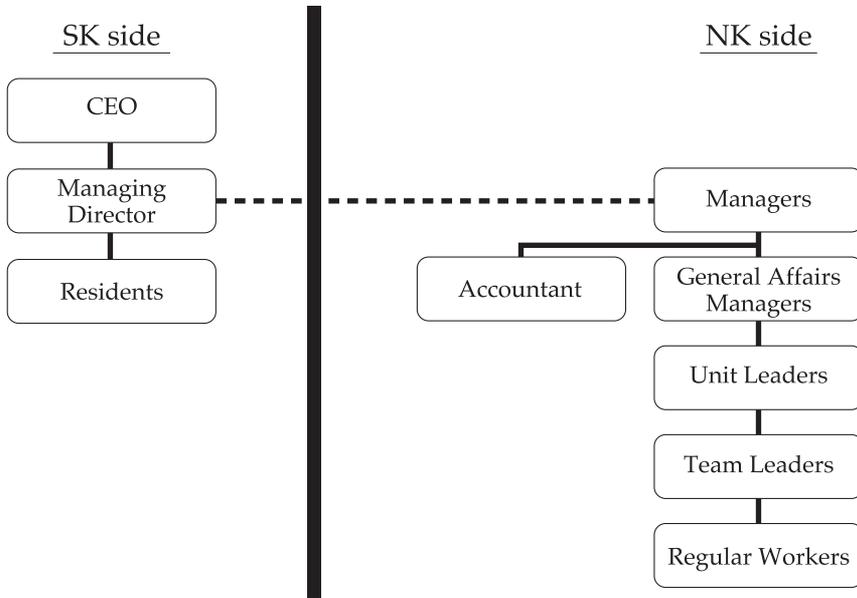
their relationship with North Korean workers as one between the “employer and the employed,” but North Korean workers viewed the relationship as an “equal partnership.” Specifically, North Korean workers mentioned that “North Korea manages North Korean workers,” or “North Korea was given the right to hire and fire workers when the Kaesong Industrial Complex was first established.” In reality, management of North Korean workers is done by the North Koreans.

North Korean managers are divided into managers, general affairs managers, unit leaders, and team leaders. This diverse set of managers has responsibility over regular workers onsite (see diagram below). South Korean business managers have traditionally not been allowed to give direct orders to North Korean workers. However, as time passed, more of the opinions of South Korean businesses began to be reflected in the hiring process, placement, production and technology guidance, and a gradual increase in South Korean managers giving direct orders to North Korean workers was observed.⁸ Despite this, however, South Korean managers can only give orders by going through high-ranking North Korean managers. Generally speaking, the South Korean head of the KIC transmits orders to the North Korean managers, which are then transmitted to the ordinary workers by the unit and team leaders. As a result, South Korean businesses could only provide North Korean workers with technological guidance. These points distinguish the Kaesong Complex from all other types of SEZs.

However, the hardline attitude held by North Korean managers gradually softened with time. The desires of South Korean businesses began to be heard during negotiations with North Korean managers, and management of North Korean workers became much more stabilized compared to the past as South Korean companies gained rights to manage workers more directly. For example, while the manager and general manager positions were filled according to pre-established methods, there were cases where South Korean businesses were given the right to participate in the hiring process of a unit and team leaders.

8. Interview with ChaeDongjin, the head of Daemyong Blue Jeans, May 11, 2012.

Figure 3. The Management Structure of the North and South Korean Workforces in the Kaesong Complex



While orders to ordinary workers continued to go through the managers, team and unit leaders, day to day orders were sometimes given directly by South Korean managers. In other words, North Korean managers did not block justified orders made by South Korean managers toward North Korean workers. That being said, if orders made by South Korean managers had no direct relationship with the work at hand or if something unexpected occurred, South Korean managers would have to generally negotiate with North Korean managers first.

North Korean managers would usually prepare hiring plans by department after considering the abilities and background of the workers. There were also cases where a South Korean manager would interview a North Korean worker and then discuss with a North Korean manager about workers who held special skills such as office work or those who may pose problems before separately making the decision to hire. With the accumulation of such experiences, the

process of hiring by the companies became more diverse depending on the needs for production management of a product or the company's own hiring practices.

There were cases in which the introduction of the South Korean human resources management system, strict control over working hours, and work attitudes led to improvements in focus and production rates. There were also cases in which benevolent treatment and improvements in welfare benefits increased the sense of belonging among North Korean workers and led to their own leadership in increasing production. While North Korean managers could ask South Korean businesses to improve the labor conditions of their workers, they refrained from temporarily switching worker's placements and also agreed they should play a cooperative role with South Korean businesses. On the other hand, there were cases in which more authority and responsibility were given to North Korean managers in order for North Korean workers to more quickly familiarize themselves to the complex and maintain stable production rates.

Cases of Capacity Building for North Korean Human Resources at the Kaesong Industrial Complex

General Characteristics in the Development of Human Resources at the Special Economic Zones

Generally speaking, when a business with a relatively high level of technology enters an SEZ they are allowed to conduct research and development (R&D) with more freedom than companies outside the zone, and the zone then becomes a center for spreading and developing technology in the country. This function not only improves the competitive power of the SEZ itself but also improves the overall technological level of the country's economy. The technology, production, human management, marketing and the know-how brought in by companies is spread throughout the country from the SEZ. Companies within the SEZ hire large numbers of workers, and the workforce's

competitive power is improved by them having received education and training. The expansion and development of the SEZ leads to the promotion of not only workforce training but the entrance of more human capital.⁹

However, the impact that an SEZ can have on the development of a country's human resources can vary greatly by country and by policy. In many low-income developing countries, the production occurring in an SEZ is merely simple, low-income manufacturing that does not require a high level of human capital. As a result there are many cases in which workers in an SEZ remain as low-skilled workers. However, in countries like China where overall policies geared toward reform have allowed the free establishment of domestic companies, the business knowledge and technology from foreign companies has spread wide enough to bring about a rise in the quality of workers and overall business management.

There are many cases in which SEZs in developing countries are comprised of low-paying, labor intensive manufacturing companies such as clothing and other light industries, and this type of business structure does not tend to change over long periods of time. In some countries, the passage of time has allowed the transformation to businesses like electric companies that require a higher quality of human capital. However, even in these cases the transformation to a higher level of business structure occurred at a slow rate because the SEZs were mainly composed of labor intensive factories, and thus it took many years for high capital and technology intensive manufacturers to enter the SEZ.

Cases of North Korean Human Resource Capacity Building at the Kaesong Industrial Complex

"Human capital" generally refers to the collective skills, knowledge and other intangible assets held by individuals that can be used to

9. KOTRA-Business Research Center, "A Strategy to Deepen, Expand and Develop the Inter-Korean Cooperation Districts," *Research Project Commissioned by the Ministry of Unification*, February 2013.

create economic value. Generally speaking, the higher one's education level the higher one's production becomes, which in turn increases one's quality of life. This basic point can also be applied to the Kaesong Industrial Complex. The first task in successfully developing the complex is to develop North Korean human capital and transform it into a productive resource. The development of North Korean human capital at the complex is closely connected with the task of raising production through a wide variety of education and training.

In fact the main reason for South Korean companies to enter the complex in the first place was to raise their competitiveness through cost-reductions, making it all the more important for them to improve the production level of North Korean workers. As a result, the managers of South Korean businesses have promoted efforts to localize operations by improving the capabilities of North Korean workers' production, management technology (quality, production, materials, etc.), and administrative support. Most South Korean businesses agree that such continuous education has positively impacted the improvement of North Korean workers' production. The greater roles North Koreans have played in the KIC's operations has contributed to the increase in the efficiency of operations and has helped to construct a harmonious communication and cooperation system between the North and South Korean workforce.¹⁰

A. Knowledge Sharing¹¹

The knowledge shared by South Korean businesses has ranged from basic computer skills and information on business safety to more advanced topics like education on production technology, sharing of business goals and information concerning overseas business prac-

10. Mid-Small Business Promotion Institute, "Ways to Improve Production of Businesses in the Kaesong Industrial Complex," *Policy Research Series 2* (2008), p. 64.

11. Please see Park Cheon Jo, "The Actual Study on the Actual Conditions of Labor Management at the Companies in the Kaesong Industrial Complex"(Master's diss., University of North Korean Studies, 2010.).

tices and the international market environment. For example, company A has provided its North Korean employees with computer training, and brought in foreign experts to conduct a higher level training. All new employees are provided with computer training for at least one month and are given practical experience. As a result, line workers, security officers, and even those working in restaurants have become familiar with computers. Line workers in particular have to become familiar with enterprise resource planning (ERP)¹² and as a result must receive computer training.

After the North Korean unit leaders receive practical education they then provided this education to the ordinary workers. In the beginning, education of team and unit leaders was conducted using two types of textbooks covering production and quality control, and the education of new workers was conducted by unit leaders who had already received the education. Higher level education was provided by lecturers brought in from South Korea and documentation was provided to teach them about the new technology.

Company B has provided their workers with not only basic office and production training but also education related to the international market environment and the need to secure international competitive power. In short, this company gave their workers education in sewing, general management, clothes cutting, quality control and theory. The education was provided through PowerPoint presentations and textbooks produced by the company along with videos showing each of the production process.

This company also provided regular education to both new workers and veteran workers in quality and production management. Unit leaders were constantly provided education, and this usually took place during lunch time or after work had finished in the afternoon. Education for the entire workforce took place twice a year during the off season for a period of five days. South Korean resident employees would become lecturers and teach about production management,

12. ERP systems integrate international and external management information across an entire organization.

quality control, safety guidelines, labor management, and then would hold circle discussions by unit.

Company C had North Korean workers who meet the technology level required by the company, but production issues led South Korean resident employees to provide practical education every Wednesday to North Korean unit leaders. These education sessions focused on understanding production products and their market, along with a wide range of other information concerning their work. The company reported a 10% rise in production rates after the education program began.

In terms of education, South Korean companies place most emphasis on quality management. This is because quality competitiveness is just as important as price competitiveness in order to make profit. As a result, companies made continuous efforts to improve quality. These efforts bore fruit when the company and workers worked together toward the same goals. For example, during the process of moving toward a joint goal of implementing “quality certification,” spontaneous efforts by North Korean workers to improve quality can bring about major results and a change in thinking about the importance of quality.

When company D realized early on that a large difference in capabilities among North Korean workers and a low understanding of customer satisfaction led to a significant quantity of defective products, the company successfully used the “quality certification system” to improve the situation. The company’s president oversaw a drastic decrease in defective products during his stay there. In addition, because bonuses were not permitted the company provided its workers with special meals for their performance and improved their working conditions by installing exercise equipment. These led to an improvement in work efficiency rates and the quality reform campaign led to the disappearance of defective products, which had reached almost 700 per month during the initial period.

Company E saw results when it provided education to North Korean managers about quality control and the importance of paying on time. The company explained that poor quality and late payments

would lead to the withdrawal of buyers, and that this would lead to the halt of production and the end of the business. Afterwards, North Korean managers understood the importance of quality control and making payments on time, and encouraged improvement among workers by posting the phrase “payments on time equals life, quality is pride.” This positively impacted the workers’ production levels.

B. Methods of Knowledge Sharing

1) Technology Guidance by Resident South Korean Workers

Knowledge sharing occurred in the form of technology guidance aimed at improving the productivity of North Korean workers. During the initial process of establishing a production line after businesses moved into the complex, long-term resident South Korean engineers conducted technology training for North Korean workers. This training was the most direct method of influencing the companies’ production. Differences in productivity varied according to the level of interest displayed by the South Korean engineers toward the training.

Company F conducted sewing training for new employees and held weekly theory classes using the company’s textbooks. After the completion of the theory class, students went through a week of practical training. Those employees who showed promise were selected to be unit and team leaders, who in turn taught other employees the skills they learned. The workers’ productivity and product quality improved when South Korean managers provided them with daily guidance; however, when this guidance was absent, the opposite occurred. When South Korean managers conducted trainings they first modeled what needed to be done, mindful of the passive attitude held by North Koreans toward the work. This method greatly improved the effects of the training. After receiving proactive training by South Korean managers, North Korean workers were able to improve their productivity due to their high understanding of the product they were making.

Meanwhile, North Korean workers’ perceptions of individual South Korean managers influenced the education and training

process. In the beginning, North Korean workers had the tendency to “test” South Korean managers. One example of this was having multiple people ask the same questions to the engineer about the technology in question. When this occurred, if the South Korean engineer was well prepared and provided good explanations the impact of the training improved. However, if this was not the case, the impact of the training was less successful.

During the training process, the area that South Korean engineers particularly showed caution toward was the content of the training textbooks. Due to the ongoing ideological and political confrontation between North and South Korea, North Korean workers refused to continue training sessions if the textbook contained sections that were hostile or negative toward the North Korean government and state. For example, during a computer skills class, the textbook in the course had a picture of a poster of the movie “Double Agent.” This became an issue and even led to the halt of the class.

2) Use of North Korean Educators

There were many cases in which members of the North Korean workforce were cultivated to become instructors of education on productivity. Company F selected those who had entered the company first and provided them with education. While the first round of education was done by South Korean engineers, a class leader was selected from among the students and became the teacher’s assistant. He or she then went on to teach incoming North Korean workers.

3) The Use of Overseas Engineers

Some companies brought in Chinese engineers for set periods of time to provide training. Chinese engineers had grown up in a similar socialist environment as North Koreans and as a result were able to maintain friendly relations with North Korean workers and held successful training sessions. Company A, which had a factory in China, brought six Chinese unit and team leaders to train North Korean workers for two months. Interpretation between the two groups was handled by a Chinese-Korean worker. The training began

with the fundamentals and later headed into more advanced topics involving production. Some companies sent their North Korean workers abroad for training but after finding that this was ineffective, they brought in foreign engineers to the complex for training instead. In general, South Korean companies have reported that the training provided by Chinese engineers was very effective.

4) Overseas Training

South Korean companies sent North Korean workers abroad for training to either improve their productivity or develop their own human resources. The only place the workers were sent was China, where many of the companies had factories. Such overseas training took place from 2004 to 2006.

Overseas training required South Korean companies to first negotiate with the Central Special Zone Development Guidance Department, the managing body of the complex. As a result, the types of training were initially very restricted. It took three months before a worker was sent for overseas training, from the time when it was first suggested by a company. This was mainly due to the fact that North Korean officials conducted a laborious process of examination for those selected for overseas training.

The North Koreans originally stated that South Korean companies could interview the workers in advance, but this rarely happened. The time spent abroad by the workers was usually two months. The North Koreans also sent managers along with the workers for their protection. Workers' pay was given to these managers during the training period. The pay was usually 60-70% of the basic wages given to ordinary workers and there were other expenses on top of this including food costs, transportation costs, etc. Before sending them abroad, South Korean companies had to consider carefully what role the trainee would have after returning.

C. Achievements and Limitations

1) Achievements

The biggest success of the various training was that workers gained a better understanding of the product they were making and the production process. Training the workers also quickly helped to reduce the number of defective products being produced. Education focused on the products' circulation routes and marketing also improved the workers' understanding of the market economic system. North Korean workers also came to understand that economic activity was maintained through close relations with other countries; that companies require competitiveness in order to survive in the market system; and that unlike in the socialist system, companies cannot receive protection from the state.

A summary of the above cases shows that the reactions of North Korean workers to South Korean managers' orders and education went through three phases of evolution. The first phase was hostility. When a South Korean manager ordered North Korean workers to do something they would respond with hostility about why they are being ordered around. As a result South Korean managers had to give orders through the North Korean managers. The second phase was silent agreement. After one or two years the North Korean workers followed orders without any problems. Sometimes the workers would not even raise objections when South Korean managers gave direct orders. The third phase was proactive attitude. North Korean workers would do their work without having South Korean managers ordering them to do so. In the beginning, the workers would not do something even if they were ordered to; however, in the end, they ended up doing things proactively without having to be ordered to do so.

2) Limitations

The North Korean government has adopted a number of measures aimed at restricting direct contact between North and South Korean workers inside the complex. South Korean managers and resident workers were able to share knowledge with ordinary North Korean

workers through North Korean managers and unit and team leaders. Of course, as explained above, while there was a gradual increase in cases where education was directly given to North Korean workers, direct contact or conversation was difficult between the two groups. For example, if a South Korean manager attempted to talk with a North Korean worker, the worker would not respond and bring a manager to talk to instead. Moreover, North Korean managers did not come alone to meetings with South Korean managers. Individual actions were not permitted and North Korean workers had to meet with South Korean managers in twos or more. These restrictions were the basic cause of the limited effect of education-based knowledge sharing at the complex.

Conclusion: Implications for Future Special Economic Zones in North Korea

It is widely believed that North Korea's planned economic system is the cause of the country's inability to extricate its economy from chronic difficulties. Neither individual tastes nor capabilities can be developed within a system that does not respect dynamic changes in standard or freedom. North Koreans have a low desire to learn in the classroom, and the same is true for laborers learning technology in the factory. In short, this structure lowers the level for people to improve their capabilities. An SEZ like the Kaesong Industrial Complex is somewhat removed from this planned economic system and thus allows a certain level of human resources development. The cases above show that while the freedom of North Korean workers is still restricted, they are capable of improving their productivity through knowledge sharing with South Korean businesses. The large-scale human development experience at the KIC will clearly contribute considerably to the development of other SEZs in the country. In particular, North Korea has become deeply aware that it is important to strengthen human resource capabilities and laws in order to successfully run an SEZ.

Together with South Korean officials, North Korean officials belonging to the General Bureau for the Special Zone Development Guidance observed SEZs in China and Vietnam five times between 2005 and 2009. The common messages these officials heard during these trips were that proactive efforts by the promoting agency and incentives are needed to promote foreign capital; free and quick passage and communication provide the basis for competitiveness; countries running SEZs need to abide by international standards in order to bring in international businesses; and that there is a need to provide proper infrastructure and support for companies. North Korea showed interest and motivation to learn about law, taxes and finances, and insurance systems.¹³

This article has shown that the perception and change in attitude by North Korea toward the building of legal system capabilities is worth examining. The efforts made by the country to learn during the process of establishing laws for the complex and the successes in experimentation with the market economic law system and building independent capabilities in legislation will likely spread to the rest of the country and play a considerable role in changing North Korea's overall system of law. In fact, the experience North Korea has accumulated in the complex has already impacted the development and legislation process for SEZs in other areas. Experts consider the passage of the "Hwanggumpyong-Wihwa Islands Economic Zone Law" on December 3, 2011, and the same day passage of the Rason Economic and Trade Zone Law as having been influenced by the experience the country had in operating the Kaesong Industrial Complex.

The governments in China and Singapore jointly developed the China-Singapore Suzhou Industrial Park. It is viewed as the most successful of the modern complexes in China. While the PRC-Singapore relationship did encounter difficulties, it is well known that the Singapore-run knowledge sharing program for Chinese officials con-

13. Lee Gangyoo, "The Significance and Implications for the North-South Korean Joint Observation of Overseas SEZs," *Unification Economics* (February 2010), pp. 40-44.

tributed greatly to the project's success. Officials from both sides acquired a great deal of knowledge and experience during the process of working together, and this same phenomenon was put on display at the Kaesong Industrial Complex to some extent as well. Since the KIC's reopening last September after being shut down for several months, the South Korean government should establish a more systematic knowledge sharing program to help construct a modern law system in North Korea and to develop the skills of North Korean administrators and managers.

By transferring new knowledge and experience about the market economy system to North Korean society, the Kaesong Industrial Complex can help speed up the country's reforms and opening. However, North Korean authorities remain concerned that this joint economic project with South Korea will bring about changes that could weaken their regime. South Korea needs to lessen the undesirable factors that could affect the regime during the process of knowledge sharing. The KIC is not there to threaten North Korea with opening and reform but is rather there to show North Korea what is beneficial and what is not, and allow the country to gain the confidence to move toward change.

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Bibliography

Interview with Chae Dong Jin, the head of Daemyong Blue Jeans, May 11, 2012.

Kaesong Complex Labor Regulations, clauses 9, 10, 11, and 13.

Kaesong Industrial Complex Law and Regulation System Research Group. *The Evolution and Future of the Law System in the Kaesong Complex*. Seoul: Kyungnam University, Institute for Far Eastern Studies. 2012.

KOTRA-Business Research Center, "A Strategy to Deepen, Expand and Develop the Inter-Korean Cooperation Districts." *Research Project Commissioned by the Ministry of Unification*, February 2013.

Lee, Gangyoo. "The Significance and Implications for the North-South Korean

Joint Observation of Overseas SEZs." *Unification Economics*, February 2010.

Mid-Small Business Promotion Institute. "Ways to Improve Production of Businesses in the Kaesong Industrial Complex." *Policy Research Series 2*, 2008.

Ministry of Unification-Mid-Small Businesses Development Institute. "Ways to Improve the Business Management and Investment Environment for Businesses in the Kaesong Complex." *Research Paper*, October 2012.

Ministry of Unification. Collection of Kaesong Complex Laws. Seoul: Ministry of Unification. 2012.

Namgoong Young. *Comparing North Korea's SEZ Investment Environment with China and Vietnam*. Seoul: National Unification Research Institute. 1995.

Park Cheon Jo. "The Actual Study on the Actual Conditions of Labor Management at the Companies in the Kaesong Industrial Complex." Master's dissertation, University of North Korean Studies, 2010.

United Nations Industrial Development Organization (UNIDO). "Export Processing Zones in Development Countries." *UNIDO Working Papers on Structural Changes*, No.19, UNIDO/ICIS 176, New York, August 18, 1980.