

Restoration of the Seoul-Shinuiju Line: Review and Outlook

Ahn Byung-Min

PREFACE

A most remarkable development in the quest to bring lasting peace and reconciliation to the divided Korean peninsula is the Inter-Korean Summit of June 2000. One visible result, part of the Summit's June 15 Joint Declaration, was an agreement to restore the cross-border railway connecting Seoul and Shinuiju, known as the "Kyongui Line." The restoration project not only exemplifies a new form of cooperation between the two Koreas, it presents a vision for Korea as the transportation and logistics hub of Northeast Asia in the 21st century.

Since the project was introduced, a new international environment has been created by those surrounding nations who wish to secure a leading role in establishing a trunk transportation network within Northeast Asia by connecting their transit networks to Korea's. Inland countries such as China, Russia and Mongolia are actively pursuing connection of their railways to the Trans-Korean Railway (TKR) while Japan is showing keen interest in the reorganization of Northeast Asia's transportation market. Meanwhile, United Nations Economic and Social Commission for

Asia and the Pacific (UN ESCAP) has seized this opportunity to push forward the stalled construction of the northern route of the Trans-Asian Railway (TAR).

The purpose of this article is to review progress of the project to restore the cross-border railway link and adjacent roads undertaken amid the new international environment, to evaluate that progress and to propose future prospects.

CURRENT STATUS OF THE PROJECT

Project Background: Inter-Korean Trade and Transportation

Trade between the two Koreas got off to a slow start, recording only a hundred million dollars in the first two years, 1989-1991. By 2000, however, the inter-Korean trade volume had risen to 425.15 million dollars, making South Korea the North's second-largest trading partner following China.

Agricultural products, and textiles account for the bulk of the 150 million dollars in North-to-South trade, while chemical products and textiles account for most of the 270 million dollars flowing from the South to the North.

Since there is no official transport route between South and North Korea, inter-Korean trade depends on marine transport using vessels from a third country. A detailed review of inter-Korean maritime trade shows that 2,013 vessels were used and a total of 703,145 tons of goods were traded. While more vessels left from North Korean ports bound for the South, a greater volume was sent from the South to the North.

Aside from marine products, most inter-Korean trade flows between the ports of Incheon and Nampo. The exchange of goods involved in the processing trade between the two Koreas follows this route. Since most processing plants are located near Pyongyang and Nampo, equipment and raw materials are transported to processing

<Table 1> Inter-Korean Trade by Sea Routes

Year	Number of Shipping			Amount (tons)		
	South to North	North to South	Total	South to North	North to South	Total
1999	731	983	1,714	780,593	203,019	983,162
2000	916	1,157	2,073	547,262	155,883	703,145
Increasing rate(%)	25.5	17.7	20.9	-29.9	-23.2	-28.5

Source: Ministry of Unification, Korea

plants in North Korea and then the finished goods are sent back to the South.

The present system of maritime transport presents a number of issues, including excessive logistics costs and prolonged shipping time. In addition, North Korea's collection of exorbitant port-entry fees and the poor quality of inland transportation within North Korea are considerable hindrances. In fact this is a circuitous route, taking much longer than necessary. While the optimum shipping period for a round trip between Incheon and Nampo is six days, currently such a trip takes ten to twelve days, and costs 900 dollars per 20-ft container, three times more than shipping costs on the Incheon-Tianjin route. Indeed, South and North Korean trading companies involved in processing trade spend about 40% of their manufacturing costs on logistics. Under the circumstances, unless logistics costs are reduced drastically, it will be difficult to expand inter-Korean trade in the future. On a positive note, if the railway and highway between the two Koreas are connected, logistics costs will be reduced by 75 percent of the current level and the shipping period shortened by 80 percent.

Progress of the Seoul-Shinuiju Reconnection Project

The agreement to reconnect transportation networks between the

<Table 2> Major Inter-Korean Shipments by Ports

	Ports	Shipped Items
South to North	Incheon Port→Nampo Port	Aid to the North, Raw materials for processing
	Yosu Port/Ulsan Port→ Songrim Port/Nampo port	KEDO-supported heavy oil
	Pusan Port→Hungnam Port/ Chongjin Port	Aid to the North
North to South	Nampo Port→Incheon Port	Textiles, fishery products, etc.
	Rajin(Sonbong) Port→ Pusan Port	Agriculture and fishery products, Textiles, Lumber, etc.
	Chongjin Port/Songrim Port→ Incheon Port	Pig iron, etc.

two Koreas was reached in the 1991 Inter-Korean Basic Agreement. Article 19 of the Agreement states "The South and North shall reconnect severed railways and roads and open sea and air routes." The agreement even covers the specific details and procedures for carrying it out. However, the plan was never realized, due to strained relations, until the Berlin Declaration and June 15 Joint Declaration in 2000.

In March 2000, during his visit to Germany, President Kim Dae-jung announced the Berlin Declaration calling for an end to the Cold War, and urging lasting peace on the Korean peninsula, reconciliation and cooperation between the two Koreas, and proposed government-level projects focused on building Social Overhead Capital (SOC) such as roads, ports, railways, electrical power plants and telecommunications infrastructure.

The Summit held in Pyongyang on June 2000 produced the Joint Declaration which pledged to solve the question of the country's reunification independently through the concerted efforts of the two Koreas. Thus, it would settle humanitarian issues including exchange visits of separated families and relatives, and repatriation of unconverted long-term political prisoners. Furthermore, the

declaration would stimulate cooperation and exchanges in all fields.

After the Joint Declaration, Seoul and Pyongyang agreed at the first round of ministerial talks held in July to reconnect part of the Seoul-Shinuiju railway, specifically, the 24km section between Munsan and Kaesong. In the second meeting held the following September, they discussed organizing a working-level team to commence construction to restore the severed railway line and to build a highway between Munsan and Kaesong. Based on the agreement, South Korea began construction on September 18, 2000 to connect the 12km of the railway beginning at Munsan and extending north to the Military Demarcation Line (MDL), and details regarding the construction were discussed at the landmark Inter-Korean Defense Ministerial talks.

In November of the same year, the first round of working-level military talks between South and North Korea was held to discuss the practical issues involved in connecting the railway. At the meeting, military authorities of the two Koreas agreed to resolve security issues associated with connecting railways and roads with a positive spirit of mutual understanding and cooperation, concurring on construction and on an area of joint control and management within the demilitarized zone (DMZ). After five meetings, held up until February 2001, the two sides reached an agreement on joint regulations for the joint control and management area within the DMZ. North Korea has yet to sign the agreement, citing administrative reasons, and at the same time, it has not commenced construction.

However recently, during his August 2001 visit to Russia by special train along the Trans-Siberian Railway, North Korean leader Kim Jong-il, showed interest in linking a North Korean railroad line to the Russian rail system. In fact, the late Kim Il-sung in 1994 had commented that restoration of severed inter-Korean railways, namely the Seoul-Shinuiju railway and the Northern East Coast (Donghae) Line, would bring an annual savings of 1.5 billion dollars to North Korea. Taking these developments into account, it is likely

that Pyongyang is currently reviewing in detail the potential economic benefit of restoring inter-Korean railways and roads, one of the late North Korean leaders' last injunctions.

Recent Developments in the Railway Reconnection Project

A. Restoration of Railway Links

Construction to reconnect the railway between Seoul and Shinuiju commenced in September 2000, and South Korea completed most of the construction of its side, the 10km section excluding the 2km zone which is part of the southern portion of the DMZ. Trains began operating on the 6.1km section between Munsan and Imjingang Station on September 30, 2001, and now construction of the exterior of Dorasan Station is underway.

To enhance efficiency of construction of the cross-border railway, the project is being carried out jointly by the Korean National Railroad (KORAIL) and the South Korean army. KORAIL was responsible for restoring the 8km section from Munsan Station to the Imjin River Bridge, while the military was in charge of clearing roads and landmines planted in the 4km section between the Imjin River Bridge and the DML. Furthermore, in order to preserve the DMZ's environment, two ecological bridges (one within the Civilian Control Line and one inside the DMZ) and 15 pathways for wild animals (seven within the CCL and eight inside the DMZ) were built.

In detail, construction to reconnect the Seoul-Shinuiju Line involves, 900,000 square meter of civil engineering, six bridges (reinforcement of one and new construction of five), reinforcement of one tunnel, installing 19.5km of railroad tracks, building two new stations, i.e., Dorasan Station and Imjin River Station. It also requires Customs, Immigration and Quarantine (CIQ) facilities, electrical power facilities, and telecommunication and traffic signals covering 12km. Construction inside the DMZ, to commence after the two Koreas reach an agreement, will take approximately six months including the period necessary to clear landmines.

B. Restoration of Roads

The total length of the cross-border highway restoration is 5.1km: 3.3km within the Civilian Control Line and 1.8km in the DMZ. Construction of the highway is also being jointly carried out by the KORAIL and the Korean army, and so far engineering work has been completed for the 3.3km section within the CCL (structural work for three bridges and 17 drainage systems) as has structural work for environmental preservation facilities (three within the CCL and three in the DMZ).

C. Customs, Immigration and Quarantine (CIQ) Facilities

As the project to restore cross-border railways and roads is based on the premise that passenger and freight will be transported between the two Koreas, it is necessary to build in conjunction with railways and roads, facilities for customs, immigration and quarantine operations. To support the Seoul-Shinuiju Line a CIQ center has been constructed near Dorasan Station. The original construction plan shows a total area of 440,000 sq. m. (railway facilities 113,000 sq. m., CIQ facilities and on-road customs area 327,000 sq. m.). The first phase of the construction mainly targets the customs station and office, while the second phase will focus on building a container yard, customs warehouse, food quarantine warehouse and an animal quarantine dock.

THE SEOUL-SHINUIJU LINE RECONNECTION PROJECT: ASSESSMENT AND INITIATIVES

Assessment

The project to restore the cross-border railway and highway, which commenced in September 2000, exemplifies how relevant ministries were able to form a close network for cooperation and

effectively resolve various issues arising from joint construction between the private sector and the military, including taking over from the United Nations Command control and transitioning management for the open area south of the MDL. Also, ministerial talks and working-level military talks with North Korea paved the way for various inter-Korean communication channels and provided a venue for the two Koreas to share in detail their views on restoring the Seoul-Shinuiju Railway Line. These precedents have set a useful standard that can be applied to future projects to connect transportation networks.

Furthermore, the project presented to countries surrounding the two Koreas, Russia, China and Mongolia, a potential policy for the 21st century: to connect their transportation networks to the Korean peninsula in order to lower logistics cost and in turn, become more competitive in goods supply and promote balanced development of the region and the economy. This view is supported by the fact that currently Russia, China and Mongolia are pursuing establishment of links with Korea's cross-border railway.

Meanwhile, various issues have arisen in the wake of the project. As the severed roads and railways vary a great deal, restoration of severed sections must be carried out according to a comprehensive, long-term approach. The plan should take into account possible unification on the Korean peninsula, and thus be supported with a step-by-step logistical supply plan. During the past 50 years the two Koreas have constructed and operated separate transportation networks, resulting in two systems with little in common. Compared to South Korea's 525 km of electrified track, about 75 percent of North Korea's 4,500 km of broad-gauge railway track are electrified in order to adapt rugged mountainous terrain. However, only 159 km of the total are single track. In addition, neither overall transportation demands nor rail capacity transport capacity on the Korean peninsula have been comprehensively reviewed. In particular, the Trans-Korean Railway connecting the two Koreas should undergo a full evaluation to determine the maximum

<Table 3> Inter-Korean Railways Reconnection Plan

Railways	Track Sections to be Connected	Length (km)	Current Status
Seoul-Shinuiju Line	South: Imjin River-MDL	5.9	Re-connecting construction began
	North: MDL-Kaesong	12.0	
Seoul-Wonsan Line	South: Shintanri-MDL	16.2	Land acquisition (1998)
	North: MDL-Pyonggang	14.8	
Kumgangsang Line	South: Chulwon-MDL	32.5	Railway drawing(1999)
	North: MDL-Naekumgang	84.1	
Northern East Coast Line	South: Kangrung-MDL	127.0	Construction planning
	North: MDL-Onjongri	18.0	

Source: Ministry of Construction and Transportation, Korea

capacity it can handle in terms of the quantity of goods to be transported within Northeast Asia and the continent.

Taking restoration of the cross-border railway for example, Seoul-Shinuiju and Seoul-Wonju Lines require a plan for transport that cuts through urban areas, Seoul-Pusan and Honam Lines need a plan to increase transport capacities, and the southern sections of Seoul-Wonju and Seoul-Shinuiju Lines need to be converted to double-track electrical railways as quickly as possible. Yet another issue stems from the Kumgangsang Line, the railway link connecting the northern Kangwon Province to Mt. Kumgang, a major tourist attraction. Because of the rugged terrain, it will be impossible to connect this route to the continental railways, and links with other railways in North Korea will be difficult. Also, this line will be used mainly to transport tourists, making it less competitive than other routes in terms of long-term economic effects. Under these circumstances, it makes sense to consider restoration of the Kumgang Line as a possible long-term project.

Additionally, to ensure that the cross-border railway restoration project is carried out efficiently, clear roles and responsibilities must be allocated to the ministries involved and someone must be held accountable for each portion of the project. In other words, complicated work processes between involved ministries (i.e.

Construction and Transportation, Unification, Environment, Culture, and KORAIL) should be streamlined and an efficient plan for CIQ and distribution center operations must be prepared. In conjunction, roles between the government and the private sector should be more clearly defined so that the government, under a comprehensive master plan, will oversee large projects that require massive capital expenditure and long periods of investment recovery. To cite an example of what happens without such a plan, a private company that has been operating the Mt. Kumgang tourism business invested heavily in construction of Changjon Port, but apparently will not be able to collect on its investment if the business is downsized or suspended.

Outlook and Tasks

A. Prospects for Early Commencement of the Seoul-Shinuiju Line Restoration Project

In 2001, North Korea conducted active diplomacy regarding the railroad to a degree unseen in the past. Ministerial talks on the subject of railways were held frequently between North Korea and Russia, and late last year, a team from the Russian Railway Ministry concluded its field survey of North Korea's railway system. Also noteworthy is North Korean leader Kim Jong-il's increasingly frequent on-site visits to railroad-related facilities. Recently, during his tour around the South Hamkyong Province, an area dense with major industrial plants, Kim showed keen interest in railway-related facilities such as the July 7th Railway Plant and Rahung Concrete Railroad Tie Plant, which produce locomotives and freight trains and are directly involved in the repair of North Korean railways and improvement of transport infrastructure. Furthermore, Pyongyang, in its New Year joint editorial issued by the governmental media, stated the intention to focus on improving its railway transport system along with sectors such as electricity, coal and metal. This declaration was supported by its leader's first visit in 2002 to

Kimjongtae Industrial Complex, North Korea's largest rolling stock plant.

Moreover, taking into account recent developments between North Korea and Russia on linking the Trans-Korean Railway and the Trans-Siberian Railway, North Korea will begin restoring its side of the cross-border railway early this year, barring unforeseen circumstances.

B. Supporting North Korea in Repairing and Maintaining its Transportation Infrastructure

After the division of the two Koreas more than fifty years ago, North Korea constructed a separate and independent transportation system that differs widely from that of its southern counterpart. Moreover, due to its closed economy and lack of funds, it has not been able to invest in, or properly maintain the system it has. As a result, most transit facilities in North Korea are dilapidated and inefficient.

To promote active inter-Korean exchanges after reconnection of the Seoul-Shinuiju railway, it is essential to support the North Korean transportation infrastructure. That support must be provided according to an organized master plan that envisions a comprehensive transportation network for the whole Korean peninsula. The feasibility plan to build proper transportation hubs must take into consideration as follows: the current status of South and North Korea's industrial base and future prospects; the possibility of significant changes in industrial structure; the economic viability of a transportation network; and its influence on local development.

In the short term, possible support for the restoration of the northern portion of the Seoul-Shinuiju Line should be considered. Taking into account North Korea's economic capacity to restore the northern section of the Seoul-Shinuiju railway, the level of support should be at least sufficient to cover minimum requirements. If North Korea supplies labor and basic materials and South Korea

provides goods that are not readily available in the North, such as rails, electric wires and asphalt, maintenance of North Korea's transportation infrastructure could total only one tenth of South Korea's construction costs.

In the mid and long term, reorganization of the transportation network should be centered around the competitiveness of the Seoul-Shinuiju Line with the vision that the Korean peninsula will become the logistics hub of Northeast Asia. Also, restoring a transportation network should be centered on competitive railways and roads in its first stage, after determining the economic viability, transit volume and topographical characteristics. In particular, reorganization of the inland transportation network should be centered around a South-North axis connecting the Eurasian continent to the Pacific, and effective links between different means of transportation should be secured.

Moreover, active efforts should be made to standardize transportation and logistics system between the two Koreas, including standardized transport documents and equipment. Also, an information system for freight transport must be established, making it possible to consolidate facilities in the long term.

C. Early Reorganization of Transportation Networks in South Korea

According to South Korea's high-level plan on national development and reorganization of its transportation networks, the current plan does not guarantee that facilities will meet the rapidly increasing transit demand and therefore, a serious traffic congestion is foreseen after 2010. Furthermore, once the Seoul-Shinuiju Line is restored, if trade between the two Koreas and within Northeast Asia is greatly stimulated, transport congestion will no doubt worsen even further. In particular, the Seoul-Busan axis railway network will reach its maximum capacity limit before 2004 and that of the Seoul-Shinuiju axis will reach its limit before 2006 when the double-track electrification project is completed.

Such an outlook reinforces the need to aggressively push forward the project to build double-track electric railways for the main line, while actively working to induce Kwangyang Port to disperse the transit volume overload of the Seoul-Busan Line. Construction of double tracks for Cholla Line to stimulate Kwangyang Port and the project to connect the Honam Line directly into Chonan should be launched quickly. In addition, the plan to build a railway circling the greater Seoul metropolitan area, still in the conceptual phase, should be promptly reviewed for implementation.

Meanwhile, roads to support inter-Korean trade should be built to re-route the heavy traffic of the greater Seoul metropolitan area. The Western Coastal Highway, linking Incheon, Kwangyang Port, Pyongtak Port and Mokpo Port, will be the best alternative for connecting the North Korean logistical flow to South Korea's western trunk.

D. Modifying Legal and Institutional Regulations

Connecting transportation networks between the two Koreas involves not only connecting physical facilities, but also legal and institutional issues. First, South and North Korea should establish a passage agreement to be the legal foundation for inter-Korean transit. Internally, South Korea should enact a framework act on inter-Korean exchange and cooperation. Furthermore, possible joint entry by the two Koreas into an international transportation agreement should be considered in a positive light and a budget plan should be set for continuous maintenance and construction of transportation networks.