

将来の北朝鮮との多国間経済協力を模索する専門家会議

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将来の北朝鮮との多国間経済協力について話しあう専門家会議が6月16-17日、ベルリンにおいて開催された。会議では、ポスト6カ国協議に検討が始まると予想される対北朝鮮多国間経済協力を見据えて、各国の専門家、国際機関の担当者、政府関係者など約30名が個人の資格で集まり、自由な立場で意見交換を行った。その成果は国際社会への政策提言としてまとめられる予定である。会議の企画に当たってはBradley Babson氏（元世界銀行）が中心的役割を果たし、パートナーとしてGerman Council on Foreign Relationsが協力した。また、米国のStanley Foundationがスポンサーとして支援に当たった。

参加者は4つのカテゴリーに分けることができよう。第一のグループは大学・研究機関などに所属する研究者で、全体の三分の一を占めた。国別では米国、カナダ、スウェーデン、英国、韓国、中国、日本から参加があった。第二のグループは国際機関やNGOの関係者などの北朝鮮国内で活動経験がある人たちで、全体の三分の一を占めた。UNICEF（国連児童基金）、WFP（国連世界食糧計画）、UNDP（国連開発計画）、IFAD（国際農業開発基金）、EC（欧州委員会）、KEDO（朝鮮半島エネルギー開発機構）などから現職ないしは元職員が集まった。第三のグループは各国政府担当者で、スウェーデンとドイツの平壤駐在大使、米国及び韓国の政府機関職員が出席した。四番目のグループは世界銀行やIMFなどの国際金融機関担当者で、将来北朝鮮がこれらの機関に加盟する場合に関係が生じる。尚、当初は北朝鮮政府代表の参加が予定されており、その意向を受けて北朝鮮大使館のあるベルリンが選ばれたのだが、直前になって欠席となった。日本からは私が唯一の参加者であった。

会議は非公開で行われ、話し合いの内容を詳細に報告することはできないが、以下概略を記す。2日間に渡ってエネルギー・交通インフラ、農業・食糧、教育・保健・社会保障、経済改革とマネジメント、貿易・投資などの分野別に専門家が発表し、その後自由討論が行われた。全体を通じて、駐平壤スウェーデン大使のPaul Beijer氏が議長を務めた。

エネルギーのセッションでは、米国のコンサルタント、David Von Hippel氏が現状分析と問題解決のための提言を行った。それによると、北朝鮮のエネルギー分野の問題点は、発電・送電などの施設の老朽化による供給面で目立

つ非効率、抑圧された需要、エネルギー製品市場の欠如である。国際協力が求められる分野として、エネルギー効率の改善や再生可能エネルギーに関する技術支援、送電施設の改善、発電所の補修、ガスの導入の手始めとしてLPGネットワークの試みなどを挙げた。

交通インフラのセッションでは、私が発表を行った。北朝鮮の交通インフラに共通する問題は、施設の老朽化と旧式のシステム・技術、鉄道重視、道路軽視の政策、山間部や農村部が軽視されてきたことによる地域格差である。北朝鮮の交通インフラの改善には長期的視野に立ったマスタープランの作成が必要であり、国土全体をリンクする道路や鉄道が近代的基準と技術を用いて整備されなければいけない。将来、国際社会が交通インフラ整備に協力できる余地は非常に大きい。

農業と食糧安保のセッションではHazel Smith氏（The University of Warwick）が発表を行った。それによると、北朝鮮の農業は“input intensive”で、増産のために痩せた土地に化学肥料が大量に投入されている。近年は二毛作やジャガイモ生産が推進されているが、2004/2005年度も50万トン程度の不足がある。しかし外貨不足の経済状態で食糧援助が必要である。最近の市場経済原理の導入で食糧確保にも格差が生じている。すなわち、高い失業率、拡大した賃金格差、インフレ、社会的セーフティーネットの不足により食糧確保の困難な社会階層が新たに出現している。北朝鮮の実情に詳しい2人の大使から、北朝鮮はベトナムなどと異なり、基本的に農業国ではないため、鉱工業を振興して外貨を稼ぎ、食糧を輸入すべきとの見解が示された。

教育・保健・社会保障のセッションでは、WFPの活動に携わった経験のあるErich Weingartner氏（CanKor）が平壤での体験を踏まえて発表した。北朝鮮の教育では、政治教育を強調しすぎることが問題である。一方で教科書などの教材は不足し、学校の建物も粗末で、冬には教室に暖房が入らないところも多い。病院についてもインフラが乏しく、聴診器、血圧計といった器具が不足しており、清潔な水の供給が不十分な状態である。社会階層別に見ると、近年、経済的・政治的格差が拡大する傾向にある。セッションのモデレーターを勤めたPierrette Vu Thi氏（UNICEF平壤代表）の話では、UNICEFは四輪駆動車で悪路を回って北朝鮮全土で支援活動を行っている。現地政府は子供を対象とした予防注射やビタミン配給などの強制的プログラムに協力的である。北朝鮮では子供は生後数ヶ月で施設へ送られ集団教育が施されるが、女性に十分な仕事が無い現状では母親が家で育てる方が良いのではないかとの見解を

示した。尚、UNICEFは日本政府からの資金拠出に感謝しているとのことだ。

経済改革とマネジメントのセッションではAri Kokko氏（Stockholm School of Economics）が北朝鮮経済の近況と改革について発表した。2002年に発表された改革はミクロ経済レベルでは価格・賃金改定、市場の承認、企業の自主性拡大、補助金廃止などが進められた。マクロ経済レベルでは為替レートの改定が行われ、総合的結果として激しいインフレが発生した。改革から3年経ったが、その成果が明確に現れているわけではない。改革はまだ途上であるし、国家経済においては弱いインフラ、優位性のある産業セクターの不在などが足を引っ張っている。また、市場経済化をリードできる人材育成が急務となっており、スウェーデンも協力の用意がある。続いて朴鍵一氏（中国社会科学院）がコメントし、改革における問題は人民の怠惰と能力の不足にあると指摘した。また、Beijer大使から、北朝鮮の優位性が発揮できる分野として鉱物抽出業があるのではないかという指摘も聞かれた。

貿易・投資のセッションではLee Chang-Jae氏（韓国対外経済政策研究院）が韓国政府などから発表されているデータを用いて北朝鮮の貿易・投資の傾向について説明した。北朝鮮の貿易では中国との国境貿易が無視できない額に達しているが、それに関するデータは無い。また、北朝鮮への外国投資が非常に少ないが、その背景に貧弱な投資環境の問題がある。投資インフラの未整備や過去の累積債務、あるいはワッセナー条約による制約なども投資障壁となっている。日朝間貿易が縮小していることも取り上げられ、拉致問題を抱える日本の世論の動向などについて私が説明した。拉致問題については参加者全員がよく知っており、日本の難しい立場についても理解されているように感じられた。しかし、この問題もいずれ解決されるであろうと多くの人は考えており、決着後は日本も北朝鮮への多国間経済協力で重要な役割を果たすことが期待されている。

任曉氏（上海国際問題研究所）は拡大を続ける中朝経済関係について補足説明を行った。その中で、昨年、延辺朝鮮族自治州幹部が公金を羅先のカジノホテルで使い果たすという事件が起こり、カジノが閉鎖される事態になった話が紹介された。

最後にBabson氏が多国間協力を推進していく上での課題を挙げ、今後の方向性に関して自由な議論がなされた。その中で、韓国の代表から、多国間協力とは別に、韓国は南北二国間でマーシャルプランのようなものを考えているとの積極的姿勢が示され注目された。一方、ヨーロッパ諸国は市場経済化へ向けて人材育成が急務となっていること

から、北朝鮮の研修生の受け入れに熱心である。北朝鮮も専門家のヨーロッパへの派遣には前向きとのことだ。スウェーデンのKokko氏の言葉を借りれば、“Unlike US or Japan, we are harmless”という利点がある。北朝鮮との政治的対立要因が少ないことがヨーロッパの強みでもある。しかし、研修にあたって通訳が足りないといった言葉の問題があるのも事実のようだ。言葉や生活習慣の類似性を考えると、南北間の人材育成協力が最も効率的なのは明らかだ。しかし、同じ民族とはいえ、南北間の信頼はそれを許すほど成熟していない。結局、現在の状況では、遠くで生活習慣や言葉が異なっても、ヨーロッパが憧れの先進的研修地となっているのだろう。

拉致問題が重くのしかかる日本では北朝鮮への経済協力はタブー視される傾向にある。しかし、6カ国協議が再開され、関係各国で外交的努力が続けられている。核開発問題や拉致問題もいずれ決着の日が訪れると期待される。その後には日朝国交正常化や北朝鮮の国際金融機関への加盟も実現すると国際世論は考えている。国際社会が長期的展望に立って勉強を始めるのに早すぎることはない。

発表原稿

The Transport Infrastructure of the DPRK

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June 2005

This paper provides an overview of the DPRK's transport infrastructure, as well as outlining problems relating to this infrastructure. However, as the DPRK does not publish official data, data published by the government of the ROK and various research institutions has been used. There are also different data that I have used for reference purposes in order to grasp general trends, although their accuracy cannot be guaranteed. Moreover, I have drawn upon facts that I have heard from foreign visitors to the DPRK and things that I myself have seen there.

1. The Characteristics of Transport Infrastructure in the DPRK and the Political Background to These

Firstly, the main role of the DPRK's transport infrastructure is the smooth transport between regions of cargo such as military supplies, industrial resources and output and energy resources, while passenger transport has a considerably lesser role. The policy of restricting the movement of the general public between regions is behind this.

Secondly, infrastructure development is a low priority. The development of transport infrastructure, which is essential to productive activity, as well as the import, export and distribution of commodities, has been put on the back burner. In fact, it would be fair to say that the country has managed to continue to use existing transport infrastructure.

Most of the railways, ports and roads of the DPRK were constructed during the 1930s under Japanese colonial rule and one receives the impression that they have been used well while being repaired as required. As a result, the infrastructure is old-fashioned and its degree of decrepitude is striking.

Thirdly, railways are the primary mode of transport. The share of cargo transport accounted for by the railways seems to be about 74% on a ton basis and 93% on a ton/kilometer basis. The railways also account for about 60% of passenger transport. For reference, the share of rail transport in the ROK is only about 7% on a ton basis and around 18% on a ton/kilometer basis. (Table 1 & 2)

At the same time, the roads are positioned in the DPRK as an ancillary mode of transport, being considered a short-distance mode of transport to railway stations in mountainous and rural areas. The disregard for road transport is linked to the "self-reliant national economy" policy promoted by this country. The DPRK, which does not produce oil, has adopted an industrial policy that curbs - as far as possible - the use of oil, which it would have to import. Instead of the petrochemical industry, the DPRK has promoted the coal-chemical industry and its power generation facilities use coal and hydropower. In the field of transport as well, the DPRK has restricted the use of cars, which require oil, and has focused on electrified railways that use electricity generated using coal and hydropower. There are few cars in large cities such as Pyongyang, and fewer still in the provinces.

(Table 1) Freight Transport by Mode (ton) (%)

	ROK (2000)	DPRK (1989)
Railway	6.9	73.8
Road	72.8	18.3
Sea	20.2	7.9
Air	0.1	-

Source: ROK National Statistical Office, Korea Trade-Investment Promotion Agency

(Table 2) Freight Transport by Mode (ton/km) (%)

	ROK (2000)	DPRK
Railway	17.8	92.8
Road	18.8	NA
Sea	63.1	NA
Air	0.1	-

Source: ROK National Statistical Office

Fourthly, the disparity between transport infrastructure in large cities such as Pyongyang and that in the northeastern region (Hamgyongbuk-Do) is considerable. In Pyongyang, the wide roads are paved as smoothly as mirrors, whereas the provinces have bumpy, winding roads. It would appear that the kind of heavy machinery used in construction is rarely used in provincial areas.

Finally, border-crossing routes (such as ports and land borders) for foreign trade are limited and it is still very much a country closed to the outside world.

2. Railways

The role of the railways, which are the most important mode of transport in the DPRK, is as an industrial railway

for transporting industrial supplies and resources, as well as agricultural and marine produce; no importance is attached to its role in the transport of passengers. The total length of the country's railways is 5,224km (as of 2001), about 70% longer than the ROK's railway network. (Table 3)

Its technical features include the fact that double-track rails account for only a small proportion of the country's railways (3%), the rate of electrification is high (81%), and the Automatic Signaling System is hardly used (1%). Overall, the lines built in the 1930s were electrified later on. The electrification standard is direct current (DC3kV), unlike the ROK's standard (AC25kV). Due to the country's policy of avoiding the use of oil wherever possible, diesel locomotives have not been introduced. Reflecting the fact that the country is quite mountainous, there are many curves in the railway line, and its tunnels and bridges are severely dilapidated; the average speed of trains on domestic lines is just 30-40km/h. In addition, its locomotives and rolling stock are old and there is a lack of freight wagons, in particular.

(Table 3) Comparison of Railways in the ROK and the DPRK (2001)

		ROK	DPRK
Length of route (km)		3,125	5,224
Electrification	Length(km)	661	4,211
	(%)	21	81
Double track	Length(km)	901	156
	(%)	29	3

Source: KOTI

The rail network consists of ten main lines and 90 branch lines. By region, it is composed of west coast lines, east coast lines, east-west lines, inland lines and the west circular Lines.

Along the west coast, the DPRK is linked to China by the Pyongui Line (Pyongyang - Sinuiju, 225km), and there is a plan to link it to the ROK by means of the Pyongbu Line (Pyongyang - Kaesong, 187km). These two main lines are complemented by such branch lines as the Pyongbuk Line, the Pyongdeok Line and the Pyongnam Line.

The Pyongna Line (Ganri - Rajin, 781km) runs across the peninsula to the east coast from Pyongyang, linking the capital with Rajin in the northeast. North of Rajin, the Hambuk Line (Rajin - Hoeryong/Banjuk, 327km) runs in a loop along the Tumen River, and a line that branches off this route from Hongui crosses the Tumen River and links the DPRK with Khasan in Russia. In the opposite direction, the Mt. Kungang Youth Line extends southward along the east coast.

With regard to east-west railway lines, to the south of the aforementioned Pyongna Line there are the Youth Icheon Line (Pyongsan - Sepo) and the Kangwon Line (Kowon - Pyonggang), which connect up to link Wonsan on the east coast with the Pyongbu Line on the west coast.

As far as inland lines are concerned, the Manpo Line (Suncheon - Manpo - border, 303km) stretches from the capital to the Yalu River in the northeast. The Mt. Paekdu Line runs to the northeastern city of Hyesan, near the border with China, while the Baekmu Line and the Musan Line run to the mine at Musan.

On the west circular lines, the Hwanghae Youth Line (Sariwon - Haeju, 100km) runs to Haeju Port.

The DPRK's railways are linked to China in three places, and to Russia in one place. Its links to China are at Sinuiju - Dandong, Namyang - Tumen, and Manpo - Jian, while its link to Russia is at Tumangan - Khasan. Using these routes, international passenger trains operate regularly on the Pyongyang - Sinuiju - Dandong - Beijing route (1,347km, 22 hours, 4 services / week) and the Pyongyang - Khasan - TSR - Moscow route (10,214km).

Furthermore, TKR linkage work implemented with the ROK is progressing. Work to link up the Kyongui Line on the west coast has been taking place in the section between Kaesong and Dorasan; the technical linkage has been completed and trial services are now being awaited. On the east coast, construction work on the Donghae line is taking place on both sides of the border.

The main commodities transported on the DPRK's railways are coal (32%), minerals (12%), construction materials (8%), metal (6%), lumber (6%), grain (4%) and chemical fertilizer (3%), accounting for 71% of all cargo. From this, we can see that the focus of rail transport is on the transport of fuels and raw materials for industry.

Looking at transport by region, we can see that regions with coalmines, other mines and bases for heavy industry are dominant, with South Pyongan Province accounting for 30%, North Hamgyong Province for 24%, South Hamgyong Province for 17% and North Pyongan Province for 10%.

The biggest problem with regard to the DPRK's railways at present is the dilapidation of railway facilities. Many facilities were built in the 1930s and the country has been reluctant to modernize them, with the result that there are problems with regard to almost every aspect of the railways in the DPRK, including tunnels, bridges, signals, locomotives, passenger carriages and freight wagons. There are some areas where impediments to transport have emerged, as they are dangerous. Moreover, the DPRK has many mountains and the railway lines in mountainous areas are winding, so speed restrictions have been imposed. If modern, cutting-edge civil engineering technology were used, long tunnels could be excavated and it would be possible to select a route that was almost a straight line, but such technology does not exist in the DPRK, and neither does the money required to implement it. Furthermore, energy shortages are becoming an obstacle to the operation of the electrified sections of railway. Although it normally takes one day to get from Pyongyang to Rajin, one hears stories of the journey taking three days due to power failures.

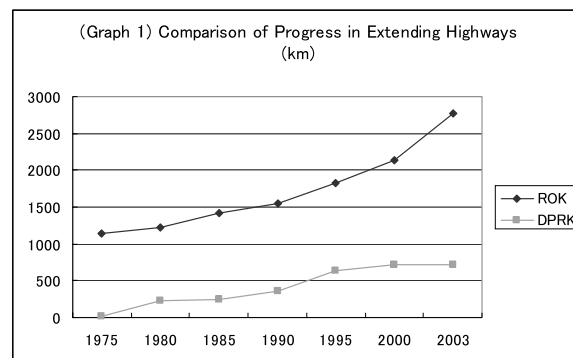
3. Roads

In the DPRK, rail is the main form of transport, while roads are assigned only a peripheral role, being used for transport over short distances, transport to railway stations and access to remote areas. Consequently, apart

from in Pyongyang, roads throughout the country are underdeveloped. Moreover, there are few cars using those roads. This can be attributed not only to the fact that the DPRK has many mountainous areas, but also to controls on the use of cars, which use imported oil; in addition, there are restrictions on travel and the movement of the populace between regions.

There are seven types of road in the DPRK: highways and Level I - VI roads.

Highways are completely paved and are deemed to be roads along which it is possible to travel at high speeds¹. The construction of highways began in the 1970s and there were seven highways as of 2003², with a total length of 724km: Pyongyang - Sunan (15km), Pyongyang - Wonsan (189km), Pyongyang - Nampo (44km & 46km), Pyongyang - Kaesong (170km), Pyongyang - Huichon (120km), Wonsan - Mt. Kungang (114km) and Sariwon - Sinchon (30km). However, the total length of the DPRK's highways is only about one-quarter of the figure for highways in the ROK. Geographically, they are concentrated around Pyongyang and there are no highways at all in the northeast of the country. (Graph 1)



Source: ROK National Statistical Office

Level I roads are major roads linking the capital with major cities in the provinces; there are ten of these, with a total length of 2,289.7km. However, less than half of these are paved. Most of these roads run alongside railway lines; the ten routes are as follows: Pyongyang - Kaesong, Pyongyang - Nampo, Pyongyang - Wonsan, Pyongyang - Sinuiju, Pyongyang - Manpo, Wonsan - Rajin, Bukchong - Hyesan, Sariwon - Haeju, Wonsan - Goseong, and Wonsan - Gimhwa.

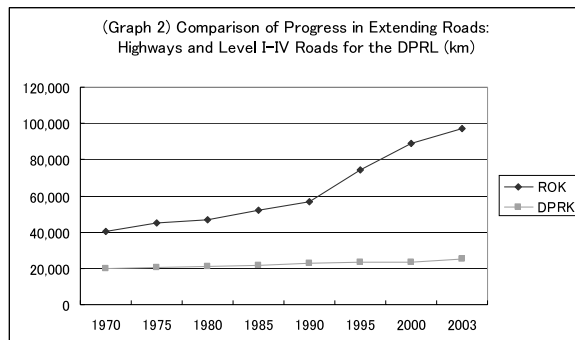
Level II - IV roads are provincial roads that cars can use, but hardly any of them are paved. Level V and VI roads are narrow and do not appear to be suitable for use by cars.

The total length of highways plus Level I - IV roads is 24,879km (as of 2003). It is clear that the total length of roads in the DPRK is low in comparison with the figure for the ROK. Whereas the total length of roads grew by 2.4 times on the 1970 level by 2003, in the DPRK the figure increased by only 1.2 times during this period. (Graph

¹ The quality of the DPRK's highways differs from international levels and they are not completely separate from ordinary roads. I myself have encountered farmers leading flocks of sheep along the highway.

² There are some who say that there are eight highways, with two highways running between Pyongyang and Nampo.

2) Furthermore, of these roads, almost all of them in the ROK are paved, but it is estimated that less than 10% in the DPRK are. If Level V and VI roads were included, the rate of road paving in the DPRK would seem likely to be even lower. Theories for the factors behind this low rate of road paving include the fact that there is little production of asphalt, which is extracted from oil, and the fact that there is a lack of heavy machinery for road construction.



Source: ROK National Statistical Office

In a similar way to the railways, the road network consists of west coast roads, east coast roads, east - west roads and northern inland roads, but unlike the railways, there is a road linking Shinuiju - Chosan - Manpo - Hyesan - Musan - Onsong, running along the Yalu and Tumen Rivers on the border with China.

With regard to road linkages with China, there are eleven routes linking the two countries by bridge across the Yalu and Tumen rivers. The volume of traffic is highest on the Sinuiju - Dandong, Namyang - Tumen and Wonjong - Quanhe routes. With regard to road linkages with Russia, the Friendship Bridge across the Tumen River is also used by cars.

The main problems with the DPRK's roads are the lack of a high-speed road network covering the entire country and the low paving rate of roads as a whole. Roads in mountainous areas are narrow, unpaved and winding, and lack a shoulder in many cases; in addition, the dilapidation of tunnels and bridges is pronounced. The road between Wonjong and Sonbong (about 50km) in the Rajin-Sonbong region, which I have visited many times, is an unpaved road with no tunnels that winds through the mountains. Large trucks traveling between Hunchun in China and Rajin Port use this road, but they cannot always negotiate the curves and many fatal accidents occur on it. This rough road is a bottleneck for the development of the Tumen River area. Formerly, the road on the Chinese side (Hunchun - Quanhe) was a similar kind of mountain road, but it has now become more convenient since the construction of a straight highway with a number of tunnels. Such improvements are needed in the DPRK as well.

4. Ports

The DPRK has a coastline 3,000km long, but it is

divided into the east coast and the west coast and there are no routes linking the two coasts. There are eight trade ports, five pelagic marine base ports and thirty fishing ports.

The eight trade ports are Chongjin, Rajin, Sonbong, Hungnam and Wonsan on the east coast, and Nampo, Songrim and Haeju on the west coast. Most of them were constructed in the 1930s, under Japanese colonial rule, and their total loading capacity is estimated at 35 million tons (7% of the ROK level), while the amount of freight handled is believed to be 16 million tons (2% of the ROK level)³.

At Chongjin and Rajin ports, which are located in the northeast, near the border with Russia, the railway tracks are a mix of broad gauge - the Russian standard - and standard gauge, and these ports were once used for trade in Russian cargo, but this has now come to a standstill. The capacity of Chongjin Port is 3-3.5 million tons/year and that of Rajin Port is 3 million tons/year, but the actual degree of capacity utilization is low. Rajin Port has a regular container route to Busan and transit transport to China's Yanbian Prefecture also takes place. The nearby port of Sonbong is used for oil imports. Hungnam Port is believed to be the best port on the east coast, handling magnesium, fertilizer, cement, steel and machinery. Wonsan Port operates regular cargo and passenger services to the Japanese port of Niigata. Nampo Port is the largest port on the west coast. Songrim Port is used for oil imports. Haeju Port is relatively new, having been opened in the 1970s.

The problem with the DPRK's ports is that port facilities, such as cranes, are old. Moreover, there are few modern ships and the ports are not being utilized adequately.

5. Major Problems Needing to be Addressed

The first problem common to transport infrastructure in the DPRK is decrepit, old-fashioned technology and systems. Railways and ports built in the 1930s are being used without any major modernization. The railways suffer such serious problems as an overwhelmingly large proportion of single-track lines, mountainous lines with many right curves, and dilapidated tunnels and bridges. The roads are narrow and there are many unpaved sections. At the country's ports, facilities such as those for handling cargo are old and the access roads are bad.

The second problem is the policy of neglecting roads. Accordingly, there is, in fact, no nationwide highway system and the roads are of extremely inferior quality. Compared with the railways, the cost for constructing roads is low and priority should be given to construction work.

The third problem is the issue of regional disparities. The roads in Pyongyang are splendid, but those in the northeast, for example, are abominable and hinder economic distribution between regions within the country. The policy of restricting the movement of people within the country is at the root of this and should be revised.

Finally, the creation of a masterplan for improving the DPRK's transport infrastructure from a longer-term perspective is necessary. Roads and railways linking all

³ The cargo handling capacity of ports in the ROK in 2003 was 510.21 million tons, while the actual volume of cargo handled was 818.655 million tons.

parts of the country must be upgraded to modern standards, using modern technology. Furthermore, it is necessary to use a common standard for the network, in order to enable it to be linked to neighboring countries.

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